SUPPLEMENT.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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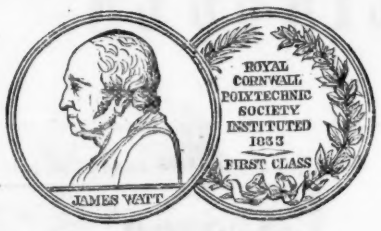
SANDYCROFT FOUNDRY AND ENGINE-WORKS CO. (LIMITED), CHESTER.

SPECIALITY MINING MACHINERY. ESTABLISHED 1838.



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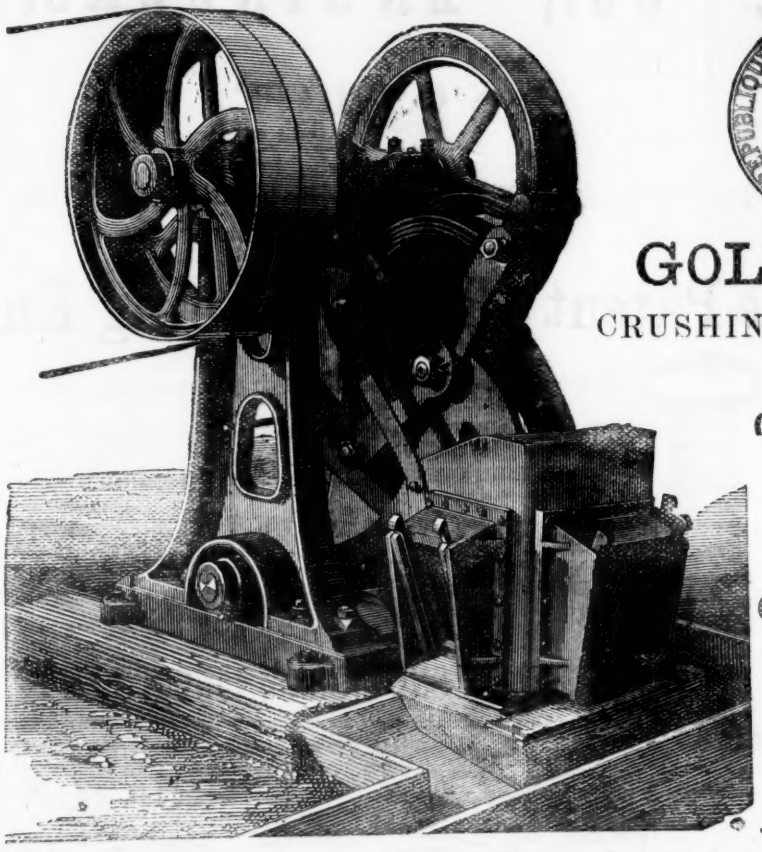
AND STORES OF ALL KINDS.



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CRUSHING AND AMALGAMATING MACHINERY.

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Amalgamated Copper Plates

PATTERSON'S PATENT ELEPHANT ORE STAMPS.

IN USE IN CORNWALL, CALIFORNIA, BRAZIL, AUSTRALIA, AFRICA, AND INDIA. THE BEST MACHINE FOR PULVERISING

GOLD QUARTZ,

And other hard and refractory Materials. Particularly designed and adapted for transmission Abroad, and for Countries where Transport is a difficulty. Quickly and economically erected. Can be seen stamping Quartz near London.

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TWO GOLD MEDALS. PARIS, 1878

FOX'S PATENT CORRUGATED FURNACE FLUES,

NOW APPLIED TO OVER

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SOLE MAKERS—

The LEEDS FORGE CO., Ltd.

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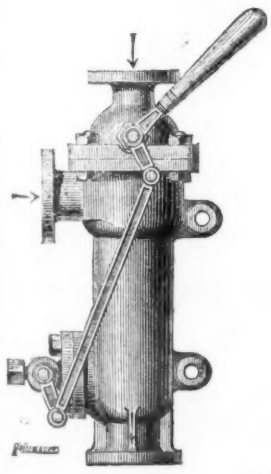
PRICE LISTS AND PARTICULARS ON APPLICATION.

KÖRTING BROS.,

ENGINEERS,

17, LANCASTER AVENUE, FENNEL STREET,

MANCHESTER.



E. KÖRTING'S PATENT

UNIVERSAL INJECTOR.

Works equally well non-lifting or lifting.
Can be made to lift 24 feet.
Works with high or low steam-pressure.
Works with hot or cold water.
Forces the water in the boiler considerably above boiling point, thereby increasing the durability of the boiler.

Is started by simply turning one lever.

REFERENCES, TESTIMONIALS, AND PRICE LISTS ON APPLICATION

GOLD MEDAL AWARDED, PARIS EXHIBITION 1878.

THOMAS TURTON AND SONS,

MANUFACTURERS OF

MINING STEEL of every description.

CAST STEEL FOR TOOLS. CHISEL, SHEAR, BLISTER, & SPRING STEEL

MINING TOOLS & FILES of superior quality.

EDGE TOOLS, HAMMERS, PICKS, and all kinds of TOOLS for RAILWAYS, ENGINEERS, CONTRACTORS, and PLATELAYERS LOCOMOTIVE ENGINE, RAILWAY CARRIAGE and WAGON SPRINGS and BUFFERS.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.

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INCREASED VALUE OF WATER-POWER.

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This Wheel (which is now largely in use in England, Scotland, and Ireland) is the only one yet invented which gives proportionate power from both large and small quantities of water. It can be made for using a large winter supply, and yet work with equal efficiency through all variations of quantity down to a fifth, or even less if required. It is easily coupled to a steam-engine, and in this way always assists it by whatever amount of power the water is capable of giving, and therefore saves so much fuel.

This Turbine is applicable to all heights of fall. It works immersed in the tail-water, so that no part of the fall is lost, and the motion of the Wheel is no affected by floods or back-water.

References to places where it is at work will be given on application to—

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SOLID DRAWN BRASS AND COPPER BOILER TUBES,

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EITHER

MUNTZ'S OR GREEN'S PROCESS.

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SPECIAL DESIGNS FOR EXPORT AND DIFFICULT TRANSIT.

Prices and particulars on application to the Manufactory, ABERYSTWITH, SOUTH WALES.

ROOT'S
PATENT TUBULOUS STEAM BOILER
SAFE, ECONOMICAL, EASY TRANSPORT IN MOUNTAINOUS COUNTRIES.

KNAP'S PATENT MECHANICAL STOKERS,
APPLICABLE TO ALL KIND OF BOILERS & FURNACES,—ECONOMICAL AND SMOKE CONSUMING.

THE PATENT STEAM BOILER COMPANY.
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ALEX. CHAPLIN AND CO.,
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PATENTEES AND SOLE MANUFACTURERS OF
CHAPLINS' PATENT STEAM CRANES, HOISTS, LOCOMOTIVES, AND OTHER ENGINES AND BOILERS
LONDON HOUSE:—
No 63 QUEEN VICTORIA STREET, LONDON.

JOSEPH FIRTH AND SONS'
New Patent Brick-making Machine,
Embraces the following advantages—viz.:

Implicity, strength, and durability. Compactness and excellence of mechanica arrangements, large producing capabilities, moderate cost.

It makes two bricks at once, and will make 2,000 to 14,000 plastic pressed bricks per day, hard enough to go direct to the kiln without drying; or it will make the bricks thoroughly plastic if required. For works requiring a machine at less cost the machine is made to turn out one brick at once, and is capable of producing 8000 bricks per day.

The Machine can be seen at work daily at the Brickworks of the Patentees, JOSEPH FIRTH AND SONS, WEBSTER HILL, DEWSBURY, and CROWBURY BRICK WORKS, SUSSEX; as also their Patent Gas Kiln for Burning Bricks, which possesses the following amongst other advantages, viz.:—Economy in Fuel, Rapidity and Quality of Work, even Distribution of Heat, and Total Consumption of Smoke.

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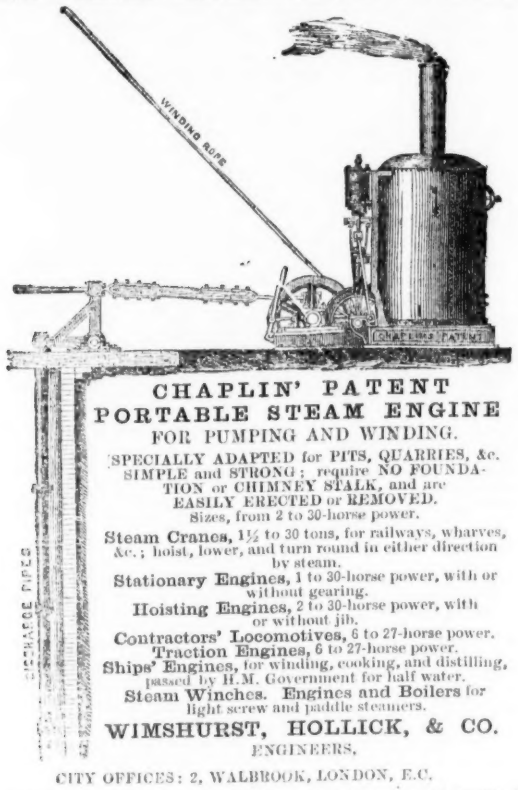

CHAPLIN' PATENT PORTABLE STEAM ENGINE
FOR PUMPING AND WINDING.

SPECIALLY ADAPTED for PITS, QUARRIES, &c. SIMPLE and STRONG; require NO FOUNDATION or CHIMNEY STALK, and are EASILY ERECTED or REMOVED. Sizes, from 2 to 30-horse power.

Steam Cranes, 1½ to 30 tons, for railways, wharves, &c.; hoist, lower, and turn round in either direction by steam.
Stationary Engines, 1 to 30-horse power, with or without gearing.
Hoisting Engines, 2 to 30-horse power, with or without jib.
Contractors' Locomotives, 6 to 27-horse power.
Traction Engines, 6 to 27-horse power.
Ships' Engines, for winding, cooking, and distilling, passed by H.M. Government for half water.
Steam Winches. Engines and Boilers for light screw and paddle steamers.

WIMSHURST, HOLLICK, & CO.
ENGINEERS,
CITY OFFICES: 2, WALBROOK, LONDON, E.C.
WORKS: REGENT'S CANAL DOCK, 602, COMMERCIAL ROAD EAST.

PATENT DUPLEX LAMPS,
FOR COLLIERIES, IRONWORKS, &c.,
SUITABLE FOR
Pit Banks, Engine-Houses, &c., &c.

Each Lamp gives a light equal to 26 candles,
No breakage of Chimneys from Heat.

S. HOOPER,
CLOSE TO NEW STREET STATION,
Lower Temple Street,
BIRMINGHAM.

Illustrations on application.

TO PARENTS AND GUARDIANS.

AN ELIGIBLE OPPORTUNITY is now offered for the SETTLEMENT of an ACTIVE YOUNG GENTLEMAN IN CANADA. He will be enabled to obtain his profession as a Solicitor in five, or if he be a Graduate in three years. Cost of living about £150. In the meantime he will have active work, and obtain a knowledge of the Dominion, which is destined to become one of the most prosperous of the Colonies. Premium, £100 sterling.

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Portable Engine—Gold Medal. Thrashing Machine—Gold Medal.

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GOLD MEDALS, AND OTHER PRIZES,
Have been awarded to CLAYTON AND SHUTTLEWORTH at the various International Exhibitions of all Nations, including
LONDON, 1851, 1862; PARIS, 1855, 1867, 1878; VIENNA, 1857, 1866, 1873;
for their
STEAM ENGINES, Portable and Fixed
(For Coals, Wood, Straw, and every description of Fuel.)

THRASHING MACHINES.
GRINDING MILLS.

TRACTION ENGINES, &c.
Catalogues in English and in all Continental Languages free on application.

CLAYTON AND SHUTTLEWORTH,
STAMP END WORKS, LINCOLN, & 78, LOMBARD STREET, LONDON.

LONDON—1862.

CHILI—1875.

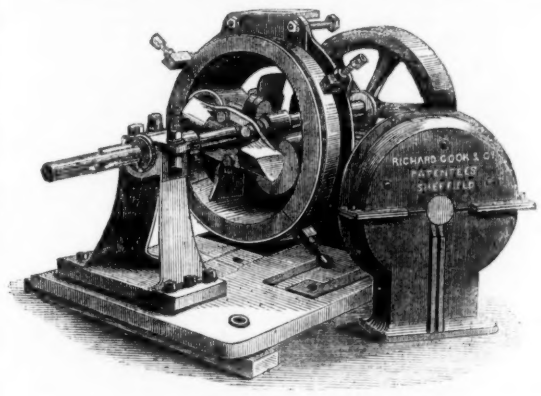
ESTABLISHED 1848.

W. BRUNTON AND CO.,
Penhellick Safety Fuse Works, Redruth,
AND
Cambrian Safety Fuse Works, Wrexham,
MANUFACTURERS OF
ALL KINDS OF SAFETY FUSE.
SILVER MEDAL (HIGHEST AWARD), MELBOURNE EXHIBITION, 1881, for
"EXCELLENCE OF MANUFACTURE."

PARIS—1878.

MELBOURNE—1881.

LUCOPS'
Patent Centrifugal Pulveriser,



(Two tons per hour with 5 horse-power actual,)
For reducing to an impalpable powder, or to any requisite degree of fineness, all materials capable of being thus treated. CEMENT, CHEMICALS, GRAIN, COAL, COLOURS, PHOSPHATES, LIME, COPPER, TIN, ZINC, and other Ores with rapidity, completeness, and perfect uniformity.

THE ONLY GUARANTEED MACHINE FOR
GOLD QUARTZ.

This mill consists of a circular iron casing, the section being elliptical in form, and is fixed vertically on a firm bed or foundation plate, a shaft runs through the centre of the casing on which is keyed a series of arms, in the extremities of which revolve two or more slightly oblong iron rollers, which, when put in motion, fly off from the centre and run upon the interior periphery of the casing, and by centrifugal force crush and pulverise the article under treatment.

The effect produced by this system is most extraordinary in its practical results, the power required is small in consequence of the comparative absence of friction from the working parts of the mill, the combined results of the rolling action of the crushers and their impact by centrifugal force on the material, being the same in kind, but in degree far exceeding that of edge runners, the sides of the casing are formed as open wire sieves of the degree of fineness required, and a series of propelling blades attached to and revolving with the central shaft drive the material under treatment through the sieves as it is pulverised; by this arrangement the degree of fineness can with certainty be arrived at from coarse to extreme fine, and that with uniformity

Intending purchasers can at all times satisfy themselves by sending the material they wish to operate on, and seeing it pulverised. Over 300 in use. Prices and testimonials free on application.

RICHARD COOK & CO., ENGINEERS, SHEFFIELD.

MANCHESTER WIRE WORKS.
NEAR VICTORIA STATION, MANCHESTER.
(ESTABLISHED 1790).

JOHN STANIAR AND CO.,
Manufacturers by STEAM POWER of all kinds of Wire Web, EXTRA TREBLE STRONG for
LEAD AND COPPER MINES.
Jigger Bottoms and Cylinder Covers woven ANY WIDTH, in Iron, Steel, Brass, or Copper
EXTRA STRONG PERFORATED ZINC AND COPPER RIDDLES AND SIEVES

Shipping Orders Executed with the Greatest Dispatch.

Original Correspondence.

THE TIN TRADE.

SIR,—The consumption of tin having overtaken and for the time fairly gone ahead of production, it becomes a serious question for consumers to consider the future position. Taking, firstly, the question of production we find on looking back the average quantity we receive from Australia amounts to 800 tons per month. It is a matter of surprise to many why with such large deposits of tin in Australia we do not receive more metal. The truth is the deposits of stream tin are nearly exhausted, and genuine mining operations have now to be resorted to obtain a sufficient supply. This it is needless to say takes both time and capital, and it will be several years before the Australian mines are fully developed. Work in Australia has recently been greatly hindered by the excessive drought, and consequently the supply from thence will be very much reduced for the next two months. Turning to the Straits we do not find the production there has materially increased for many years past. The total stock, Europe, America, and afloat was—

On 1st January, 1880, 22,536 tons,
On 1st January, 1881, 20,849 tons,
On 1st November, 1881, 17,772 tons,

showing a decrease of stock since last January of over 3000 tons. We always receive a full supply of tin from the Straits between November and February, after which time the shipments fall off until the following autumn. This is accounted for by the fact that the Chinese cease working in February in each year. Unless, therefore, we have very large shipments from the Straits during the next three months, say to the extent of 2000 tons in excess of our actual requirements, or in other words unless we start in January, 1882 with 2000 tons more stock than we now possess, and the world's consumption goes on at the same rate as this year, by November, 1882, we shall have at least 4000 tons less stock than at the present time.

There is not much inducement at present to ship tin from the Straits to this country as the price there (owing to Chinese and American demand) is above that ruling here. Turning to the question of consumption we find it has steadily increased during the past three years, but in the last 12 months it has developed in such a remarkable degree that it is not surprising that those who have not studied the matter should be somewhat sceptical of the accuracy of the published figures, but these figures are capable of explanation. In England the tin plate trade absorbs the larger part of foreign tin. There are 300 mills at full work, consuming on an average 1 ton per mill per week; this will account for 1200 tons per month. To this must be added at least 200 tons exported monthly to the Continent. This is supplemented by the Cornish and internal demand, and then we have the home trade, for which English tin is chiefly used. The increased demand for English common tin is proved by the fact that for the past nine months the price has been some 5*l.* to 7*l.* above the price of foreign instead of (as is usually the case) about the same, or even lower. There can be no question that apart from speculation, should the present heavy deliveries continue (of which there appears to be no doubt), the price of tin will not only be maintained, but it is a serious question whether it will not materially advance.

Leadenhall-street, Nov. 7. ——— EDWARD N. PHILLIPS.

QUICKSILVER.

JANUARY TO OCTOBER (INCLUSIVE).

		1880.		1881.
Export	Lbs.....	919,209	.....	1,449,729
Export	Flasks, about ...	12,175	.....	19,201
Import	Lbs.....	3,612,026	.....	3,528,467
Import	Flasks, about ...	47,841	.....	46,734

The London imports are less, while the exports have increased about 58 per cent. since same time last year.

Great Tower-street, London, Nov. 8. JOSEPH BENNETT BROS.

OTTOMAN BANK SHARES.

SIR,—Those of the public who understand the true force of the recent announcement in the Daily News of Nov. 1 respecting the important bearing the Ottoman Bank is now assuming are evidently doing well, the shares having steadily risen to 19*l.*, a point apparently far below their real value 24*l.*, compared with other valuable securities more represents their value. ——— OBSERVER.

ORDINARY MEXICAN RAILWAY STOCK.

SIR,—The observations you have from time to time permitted me to make about ordinary Mexican railway stock during the last four months receive wonderfully strong confirmation in Mr. W. Abbott's "Circular of Sound Investments" for November. He states "it was confidently asserted the ordinary stock would command a value of 105*l.*" As the price is now only 99*l.*, cum dividend, "there is," he says, "very considerable margin of profit for those who purchase now, as on the basis of 8 per cent. dividend the stock would be worth 110*l.* to 115*l.*"—*Nov. 9.* ——— OBSERVER.

MINING IN NEW SOUTH WALES.

SIR,—The few following extracts from Saturday's paper will serve to give a good general idea of how mining is again looking up with us at Temora. The best ground still appears to be in Deutscher's freehold, but all the golden claims are doing more than well:—

At Temora several prospecting parties started on Saturday to prospect new country. Hogan's washing went 10 dwts. to the load; Bourke and party finished their 1000 loads, which averaged 15 to 16 dwts.; 200 loads from Murray and party, prospectors, gave 8 dwts. to the load; No. 2 Deutscher's picked out 26 ozs. this week; Hidden Treasure picked out this week 56*l.* worth of gold; 98 loads of cement from Knox's, Upper Temora, yielded 75 ozs.; No. 4, Deutscher's had another washing, which went better than the last crushing. The Frenchman's are now washing 1400 loads; first machines look very well. Mr. Wilkinson, Government Geologist, who inspected the upper town, speaks very highly of that portion as a reefing district. Mr. Wilkinson visited the deep lead, and thinks that the miners will get plenty of additional water and fresh leads in that direction. He believes there are rich claims in and about Deutscher's paddock; he also thinks well of Bourke's reef. The Speeler's claim washed four machines, which went respectively 4 ozs., 6 ozs., 17 ozs., and 20 ozs. The Frenchman's claim washed up three machines, which went well, one piece of 14 ozs. being picked out. The largest escort that has yet left Temora went on Wednesday; it took 4082 ozs. 10 dwts. 13 grs. The Amelia Gold Mining Company have struck rich stone.

At Copeland, hundreds of miles away in another direction, the reefing is looking up also. It is on this field that the Prince Charlie line is, which was so favourably noticed by Dr. Robertson in a former letter. A correspondent writes—Messrs. Benjamin, Scott, Driscoll, and party, of No. 1, Centennial South, crushed yesterday for a yield of over 2 ozs. per ton; the prospects of the field are daily improving. The Hidden Treasure Company are raising a large quantity of stone, and intend again starting crushing shortly; the quality of the stone is first-class. Hidden Treasure No. 1 have struck gold, and hopes are entertained that the discovery will considerably enhance the value of this claim. The Town and Country are now crushing at Campbell's machine, with prospects of a good return to the shareholders. Centennial No. 1 north (Scott and party) have a large reef showing good gold. Hidden Treasure No. 2 (Bibby, Benjamin, and party) started this week with excellent prospects, with a large reef showing gold; this claim promises to be one of the best on the field. Prince Charlie (Brockwell and party) are crushing at their own battery; this claim has a large quantity of stone at grass, and anticipate returns when cleaning up equal to previous good crushings. No. 1 Prince Charlie (Jones, Morgan, and party) are raising a large quantity of stone, and are waiting repairs to Rainbow battery, when they will start crushing; these two claims have a reef 3 to 4 ft. wide, and the stone looking well. No better field exists for the investment of capital than this district, the golden area embracing an extent of upwards of 20 miles of country, and money is only wanted to make this place the Sandhurst of New South Wales.

In a different direction (200 miles west of Sydney) both copper and gold are proving what the Carcoar district can do. M'Donald's claim, near Milburn Creek, has been sold to a party of Melbourne men for the sum of 18,000*l.* It is also reported that several Blayney investors in other claims at Milburn Creek have sold out to the same party at very high figures. An escort has arrived at Blaney with the following quantities of gold:—On account of the City Bank, Carcoar, 499 ozs. 3 dwts.; on account of the Commercial Bank, Carcoar, 72 ozs. 15 dwts. 20 grs.; and on account of Brown's Creek Gold Mining Company, as the result of four week's work, 293 ozs. 4 dwts. 7 grs. Mr. Nicholas, M.E., professor of geology, Melbourne University, who has been looking over the field, states that the district is one of the richest he has inspected. It is intended to develope the M'Donald claim thoroughly, and provide the district with ample crushing plant with latest improvements. Crichton and Co.'s 25-head stampers crushing plant is *en route* to Milburn Creek. During the last fortnight 2175 acres of land were selected at the local lands office.

At Blayney, Marsden's copper lode has been further tested by competent miners. The last assay, a few days back, yielded 33 per cent.; the width of the lode is 18 ft.; this mine is expected by the best of judges to turn out one of the richest copper mines in the colony; it is within four miles of this copper lode that the Brown's Creek Gold Mine is, which has the only 50-head battery in this colony, and which my old friend, the late Rev. W. B. Clarke, F.R.G.S., stated to be originally a boiling spring. In the adjoining farm there is also a large gold-bearing dyke and deposit, a 15-ft. ironstone band, and a copper lode, all within an area of 150 acres; whilst the whole district from there to the celebrated Wentworth gold field is literally seamed with mineral lodes and deposits of alluvial gold, but nearly all unworked for want of the energy and funds to prospect their property.

In Queensland, Gympie is still turning out sensational yields of gold from its reef at the deeper levels, the North Phœnix having just given over 12 ozs. per ton for 219 tons stone, and Charter's Tower is following suit.—*Sydney, September.* R. D. ADAMS.

THE GOLD FIELDS OF MYSORE.

SIR,—The Mysore properties already before the British public are by no means the only ones worthy of their attention; and I may take this opportunity of referring to the Honnali gold fields, Shemoga district, which were favourably referred to by Mr. Deputy Commissioner Hill in 1878, and which have recently been carefully inspected and reported upon by Mr. Mervyn Smith, for Messrs. Watson and Co., of Madras. Mr. Hill states that the Honnali taluq may be described as a basin enclosed by a circle of low hills broken by only two considerable gaps, that by which the Tungabrada River enters the taluq on the south, and that by which it leaves it on the north. It is bounded on the north by Darwar (Bombay Presidency), on the east by Chittledroog district, on the south by Shemoga taluq and west the Shikapur taluq. Its area is about 500 square miles and it has a population of about 66,000. The valley is drained by the Tungabrada, which traverses its eastern extremity from south to north, the drainage being toward that point from the north and the south. Within the circle of hills the basin may be said to be made up of low swelling ridges, running north-west, and intervening valleys, all covered with a deposit of regur, or black cotton soil, varying in depth from a few inches to several feet. The rainfall is 32 inches annually, and the taluq receives a portion of each monsoon. The heaviest rainfall recorded in 1874 was 8·5 inches in May from the south-west monsoon, and 7·9 inches in October during the north-east monsoon. This distribution of rain throughout the greater part of the year is of very great advantage, as by this means smaller reservoirs, frequently replenished, would answer all purposes; while if the rainfalls were confined to but one monsoon larger and more expensive reservoirs would be required to store away the year's supply. With the exception of the south-west extremity the country is comparatively bare. Shrubs of small growth being found here and there on the hills. At Kumsi, in the south-west, is the State forest of that name, 16 square miles in extent, which yields large quantities of good teak, black wood, honne, matte, &c., so that there would be no lack of the best possible timber for all mining purposes, and within a convenient distance. The general elevation of the taluq is about 2100 ft. above sea level, the tops of some of the hills being 600 ft. higher. The hills to the south and east have a stratified appearance, being composed of a talcose schist, which at the tops of the ridges is indurated, and largely charged with magnetic iron. The sides of the hills are covered with loose angular pieces of hematite and iron-shot slate, broken off from the exposed surface of protruding rocks; these resist the action of the weather, and make the hills difficult to climb. To the north and west the hills are not so high, are more rounded in form, and consist of quartzite and shales. In the basin beneath the alluvium, which is in some places as much as 30 ft. deep, there are beds and veins of limestone, in small nodules, overlying and running into the schists, which form the substratum. In no part of the taluq is granite to be found, nor have dykes of trap been observed. A few bands of gneiss and hornblende schist are seen in the north and east.

Every part of the taluq is easily accessible by means of good roads, and from Shemoga there is a first class road to Bangalore (173 miles), and several to the western coast, 100 miles off. The system of railways sanctioned by Mysore, and now in hand, makes Typtur, a town 90 miles south-east of Shemoga, the central point from which branch lines will radiate to Bangalore, Mysore, Shemoga, and Sira, so that we may shortly expect to see a through railway communication with Madras. Woddars (professional miners), Lammanies, and Korachers are here found in great numbers, and so highly are they valued as labourers that large advances are frequently made by the coffee planters of the Kadur district to entice these people to their estates. Many of them, leaving their families behind, work on the coffee estates for six months, and then return to their homes. The wages of a man are Rs. 6 per month, and of a woman Rs. 3·8. Of course if work could be found nearer their homes they would gladly stay, so that labour at the mines would be abundant and cheap. As far as can be learnt, the gold region appears to be confined to the north-east slope of the range of hills forming the southern boundary of the taluq, and may be defined as a belt 2½ miles in width, extending from Dodaree in the south-east to Belgotee in the north-west, a distance of about 10 miles. Beyond the fact that an annual sum was paid to the revenues of the State for the exclusive right to wash for gold in the above tract there is little in the records of Government to throw any light on this subject.

The colony of Julgars, or professional gold washers, formed in Pulwanhullee, informed Mr. Mervyn Smith that they and their fathers and grandfathers have been engaged in the same calling in this locality; and so far as they know their forefathers had no other residence, so that it might be assumed that gold washing as a profession was carried on here from time immemorial. The appliances used by the washers are extremely simple. A circular wooden dish, called "halagay," (the murriya of Wynaad), for panning off, and a "dhonie" for concentrating the auriferous drift. The latter is a wooden trough, about 4 ft. in length and 1 ft. square; the lower end is open, and across the bottom plank are fitted a couple of pieces of bamboo, about ½ in. deep, to act as ripples. When the dhonie is used the Julgar has two paid assistants (generally coolies) to help, one excavating the drift and the other pouring on water, while the Julgar himself manipulates the washing in the "dhonie." The rent paid to Government was always farmed to one individual, who sublet it at a profit, usually as much again as the Government kist, to the washers, of whom there were never more than twenty in this locality, so that by taking the average yearly kist paid to the Government as Rs. 300, double that sum (Rs. 600), or Rs. 30 per man, was paid by the washers to the contractor. This tax did not press heavily on the men, as they themselves allow that an average day's washing amounted to Rs. 2, and they could reckon on sixty days washing throughout the year, during the months of May, July, and October, with an occasional washing during the other months.

The great drawback is the want of water, as the nullas merely contain a little water for a day or two after heavy showers. Ten tanks were seen in this locality, but none of them are of any use, as some are breached and others silted in. With a small expenditure of money (but far more than the ryots could afford) most of these tanks could be repaired, and an unfailing supply stored up, as the tanks, though of small capacity, would be filled repeatedly by the rains of both monsoons. On Mr. Mervyn Smith's arrival at Pulwanhullee he asked the Julgars if any large finds had been made this year (1880-1881). They one and all denied having found anything larger than a grain of raggy for several years back. After he had been with them a few days, and they found he was not a Government official, a nugget weighing 3 dwt. 4 grs. was shown him as found last December, and several other pieces of less weight. It may be safely assumed that pieces of a few dwts. are not unusual, and that occasionally a nugget of a few ounces is picked up. The appearance of the quartz—extremely cavernous (mice-eaten)—with cells of some size—favours the assumption of coarse gold being not uncommon. This contrasts most favourably with that known to be obtained from the Wynaad, where, according to Mr. Brough Smyth, nothing larger than 7 dwts. has been found. The natives confine themselves to that which is most easily got at—the earth in the bed of the streams, and the lowest stratum that they can dig from the side of the nullas. These nullas, running directly from the steep sides of the hills, cut through the alluvium of the plains to a depth of from 5 to 30 feet, and expose merely the surface of the underlying strata, generally a talcose schist. Comparatively little of the alluvium has been worked, the washers confining themselves to what is most readily got at, and this forms but the merest fraction of the auriferous deposit, so that they have here a speedy means of getting good returns.

The general direction of the reefs is north 40° west, south 40° east, varying from that point to due north and south, and in a few instances to east and west, as noticeably the large reef of Sogl and a similar one at Kencheekop. The casing in most instances is a talcose schist, of a light buff colour, and occasionally charged with chlorite. On the hills this schist becomes indurated and vitrified, and associated with brown hematite and magnetic iron and the laminae, are not to be easily recognised. The reefs hade to the east at different slopes, according as they are seen on the top of a hill, or in the valleys, and seldom keep a uniform slope for any depth. The strike is generally with the foliation of the country rock. The Monarch reef, so called from its size, is first distinctly observable from its outcrop, about one mile south of Chetunhullee. Here the quartz is of a blue-black colour and extremely hard. It is highly crystalline, the crystal being aggregated in no particular order, nor are they of the same size. Following the nulla which runs north east from Chetunhullee, we cross several reefs of white quartz, varying in thickness from a few inches to as many feet. All of these are more or less cavernous, and chiefly so at their lines of junction with the casing. This a most favourable indication, and at once distinguished it from the dense, compact, non-metalliferous quartz, as it is this honey-combing to which the name "mice-eaten" has been given by miners, and is considered as one of the best signs of the quartz not being sterile. About half a mile north of Pulwanhullee is Harris reef. The outcrops of this reef may be traced for several miles from the low hills to the east of Pulwanhullee, along the northern face of Gejiganhulli, and on to Kodrikonda. It is lost in the low ground to the north of Salwal, but is seen again on the mound between stream and high road. This reef strikes N. 40° W., S. 40° E. with a slight dip to the east. Its greatest width might be 7ft. and where narrowest 3 ft. The quartz at surface is white, with bright yellow stains where exposed. The miners would appear to have gone down on the underlie of the reef, just near its junction with the leader marked as Bill's reef. The natives know nothing of this mine beyond its name, which they say was given to it because the Julgars at one time washed in it for gold. Running south from Julgar gunni is a leader about 2 ft. wide, marked on map Bill's reef." This reef has been tested where it crosses nulla, about a 100 yards south of Julgar gunni. The quartz is here laminated and ferruginous, and breaks up into pieces of a few inches cube. The lines of lamination are marked with a red adhering clay, which coats the pieces of quartz and gives them an earthy appearance. The results of repeated trials here are exceedingly promising, as in more than two dozen trials every washing gave gold, in most instances a few specks, and in two cases as much as 2 grs. of coarse gold from 8 ozs. of stone. The earthy coating prevents gold being seen by the naked eye, but he believes that when a greater depth is reached, where oxidation of the iron has not taken place, rich specimens would be secured. He would advise a trial shaft being sunk here. A quarter of a mile north of Harris reef is another large reef, which I have called Tope reef, from the fact of his having first observed it near a mango tope, near its eastern out-crop. The course of this reef is parallel to, and its out-crop nearly coincident with, that of Harris reef. The quartz of this reef is hard, dense, and in some places the colour is almost blue-black; a small show of gold was got from 2 lbs. of quartz tested.

North-easterly from this in the direction of Dasurhutee are several other reefs, some of considerable size. Between the Daveekop hills and village of Soorhona 14 reefs were observed; Smith's reef here appears to be the same as Harris reef, already mentioned. To the west, and near the village of Kodrikonda, is a large mine called Anni-gunda on Smith's reef. This mine must have been of considerable depth judging from the heaps of debris (20 ft. high) around its mouth. The mine is nearly filled with earth, and the natives say that during heavy rains the water which finds its way into the mine is sucked down, and forms a small whirlpool at surface. This would occur if there were a large adit below that was not filled in, and the water probably escapes through this to some lower level. He sunk two shafts on this mine at its eastern and western extremities. At 25 ft. on the eastern shaft he came on large masses of casing, apparently thrown in, the interstices between the blocks being loosely filled with earth, so that a rod could be pushed in for some depth until it met another block. These masses of stone were too large to break up with the appliances he had with him, so he sunk another shaft at the western end of this mine. Here, too, he found masses of casing at 36 ft.; also charcoal, old pots, and pieces of rope. Very little quartz was met with, and it is not improbable that the reef was found so rich that all of it was crushed. Even the heaps of debris at the mouth consist of casing. About 200 yards to the east this reef is crossed by a nulla about 10 ft. deep, which exposes a good deal of the quartz. Here gold is seen at surface, and several rich specimens were broken off. The quartz is extremely hard, and charged with iron throughout, so that it has a fine purple-black appearance. Of the many trials made all gave gold, some samples being particularly rich. The gold here is in very fine particles, and distributed throughout the stone, so that great care must be observed in washing, or the light particles will be certain to float off with the spoil. Much gold is washed from the nulla, which here crosses the reef, and some of the largest nuggets are said to have been obtained a little lower down this stream. None of the other reefs here have been named, nor has he examined them minutely, but from their appearance he is inclined to believe they are all auriferous. No reefs of any size were observed in the nulla to the west of Soorhona, but masses of purple quartz similar in all respects to that of Smith's reef were seen in its bed; this is a favourite washing ground of the julgars. All the reefs observed near Daveekop and Kodrikonda run north and south, with an invariable tendency to the west from 1° to 40°.

Near Aroondee several reefs were observed, the largest, named Giant Reef, being quite 50 ft. in width; this reef runs east and west, and outcrops strongly on the top of a low ridge to the north of Aroondee. The quartz is hard and white, and is seen in massive blocks covering the whole hill for about a mile. The casing is a species of quartzite, known in this country as the Cuddapah quartzite; it shows but little signs of stratification, and weathers into a coarse earth. Several other reefs worth working were also met with, but enough has already been written to given an idea of the character and wealth of the district.

In his concluding observations Mr. Mervyn Smith states that he is of opinion that the richest land would be included within a parallelogram, having Kodrikonda and Soorhona on the north-west, and Pulivanhullee and Dasurhutee on the south-east. This would include all the workings that have been observed, as well as the richest native washings; within this area too are those reefs which superficial testing has proved to be auriferous. He does not mean by this selection that it should be inferred that the other localities where reefs

have been observed are not auriferous, but merely that he has not had the time to prove them to be otherwise. He would most strongly urge that a trial be made of hydraulic jet-sluicing, or any other system of alluvial working, as from what he has seen of the country he is inclined to believed that this will be found remunerative in the first instance, while shaft sinking, erecting of machinery, and other preliminaries of quartz crushing were in progress. With abundant and cheap labour, an unlimited supply of fuel and timber, good communications, and, above all, an auriferous out-turn, placed beyond the region of probability by actual results as shown in independent official records, as well as tests carried out by him, he sees no reason why the Honnali gold fields should not be reckoned one of the most promising in India.—*Bombay, Oct.* 12. H. C.

THE SOUTH AFRICAN DIAMOND FIELDS.

SIR,—My attention has been drawn to several references in the Journal regarding mining companies in this territory, and diamond industry generally. The statements are so misleading and contrary to fact that not even persons acquainted with the country could derive any knowledge of the real position of its affairs, while those ignorant of it would be perfectly puzzled. To show how erroneous the statement to the effect that the industry does not pay is I enclose a statement and report presented yesterday by the directors of the British Diamond Mining Company (Kimberley Mine) to the shareholders,* from which it will be seen that they declare 15 per cent. dividend for the quarter (equal to 60 per cent. per annum), carry 904*l.* 9s. 6d. to the reserve fund, and 1240*l.* 9s. 6d. to next quarter's profit and loss account—making their net earnings over 17 per cent. for the quarter. It will be observed, also, that they have 4250 loads of diamondiferous soil and 900 loads lumps, equal to 5150 loads of 16 cubic feet, already hauled out of the mine, and deposited on the floors to undergo the process of washing, and that during the time from Oct. 1 to making the report, which was on Saturday, Oct. 8, they found diamonds to the value of 4000*l.*, being at the rate of 500*l.* per diem. I may state that while the soil is being washed the hauling by no means ceases, so that as it is washed the depositing floor is refilled; there is, therefore, a constant supply, unless something unforseen happens to prevent hauling from the mine, which is over 300 ft. deep. If you would kindly publish this report I, as one of the shareholders, would feel greatly obliged to you, as I am sure it would disabuse the minds of the readers of the Journal of any false impressions current through erroneous statements.

The notable mines in this territory (Griqualand West) are—1, Kimberley, containing 800 claims of 30 ft. square, equal to 720,000 square feet; 2, De Beers Mine, containing about 700 claims; 3, Dutoitspan Mine, containing about 1600 claims; and, 4, Bultfontein Mine, containing about 1000 claims. The claims were originally the property of private individuals, and were worked separately; but very recently amalgamations have taken place, and companies duly registered according to law, limiting the liability of shareholders to the value of scrip—formed with the view to the more economical working of the ground, which varies in quality of richness according to the locality, and in many instances according to the depth of the claim ground, for it has been proved that the deeper the miner digs the richer does his ground become. I do not wish it to be thought that every company formed has been successful in its operations—far from it; many of them have had so many difficulties to contend against that their prospects have become gloomy, but everything depends upon the management. It has happened that a change of manager and overseers has brought about quite a cheering result over the previous mismanagement. The four mines are all situate within a radius of 1½ mile; but diamonds are found far and wide in more or less numbers. Prospecting for payable diggings is going on at all points of the compass, and although diamondiferous soil which compares favourably with the established mines is found in many places far and near, and new diggings are opened by Government proclamation, causing some excitement for the time being, the result is always the same—that the ground is of good appearance, but without containing the precious stones in sufficient numbers to warrant the expenditure for the necessary machinery to work it. This in itself is sufficient argument against the allegations that diamonds will become as cheap as garnets, and it is an admitted fact that since the discovery of the South African fields their price has never been so good as at the present time; and I do hope that the dividends anticipated by many of the companies will be realised, and our country will advance in the good opinion of the European people in proportion. J. J. GEO. RHODES.

Kimberley, South Africa, Oct. 11.

THE SOUTH AFRICAN DIAMOND FIELDS.

SIR,—On Friday last there were rumours of a rich discovery of gold having been made about 40 miles from Kimberley. Many persons had actually seen handsfull of nuggets, and men whose integrity was supposed to be unimpeachable pronounced them to be the richest gold fields that have been found during the present century, and declared that nuggets of gold were found adhering to the roots of the shrubs. Anxious to get a small footing in the new El Dorado, and a few tons of the precious metal, I lost no time in company with a friend in rushing off to the spot. Our horses being about the best in the neighbourhood, and our trap very light, we soon passed every conveyance we saw on the road; consequently, we had very little doubt but that we should return with at least several hundredweights of the precious nuggets. On our way we passed the *Caput mortuum* of the Frankfort Mine (?). There are several abandoned pits to be seen; but since Mr. T. C. Kitto reported on this property every person has abandoned the concern, as Mr. Kitto states there is not the remotest chance of finding diamonds there, and the other persons who reported on it are not mining men. After a pleasant drive we arrived at Boshof at about 10 P.M. We soon retired to bed, but not to sleep. We were haunted by visions of big lumps of gold, and in the morning we were the first up, had a hasty meal, and inspaned. If the son of Nimshi ever drove faster than we did all I can say is he must have had good horses. About an hour brought us to the gold-producing roots of the shrubs; but, smart as we had been in getting to the place, we were equally smart in getting away again—and if ever I felt an inclination to curse the manufacturers of mines and promoters of sham rushes it was on this occasion. There is not the slightest probability of finding gold in the place.

I am pleased to notice that the Barnato Company, in the Kimberley formation, has paid a dividend for the quarter of 9 per cent.; but I am afraid they will get no dividend for the next quarter, as the reef is caving in, and has already buried some of their ground. The British is likely to pay 15 per cent. for the quarter; but those claims will soon be covered with fallen reef also. I do not know of any other company likely to pay a honest dividend. The British Company have 12¾ claims, and the Barnato 4½ claims, out of a total in the Kimberley formation of 416. Taking the companies in the Kimberley formation in the aggregate the present quotations of shares are much above their true value. In fact, I strongly advise European capitalists to have nothing to do with these companies, unless at the same time they have the management or a large portion of it. There is really no fault to find with the productive character of the mines, but the management is ruinous in the extreme—or rather the mismanagement. If nearly half of the shares of a company are held in England and the remainder here it is likely to pay the local shareholders to keep the concern going, while the foreign holders may be losing heavily, because the yield is absorbed in extravagant management, and situations are made for friends whether they be required or not. Just imagine a company in England, with a mine 150 ft. square, paying one manager in the claims 1500*l.* per annum, and another (the captain dresser) also 1500*l.* per annum, with a score or more overseers and clerks, cashiers, and brokers in proportion.

Another great drawback to the Kimberley Mine is the dangerous and insecure sides of the mine, which are ever caving in and burying the diamond-producing soil, and this will always be insecure until the sides are sloped down from the surface to the igneous rock at an angle of 45°. In Mr. T. C. Kitto's report to Col. C. Warren, in 1879, it was shown that to secure the sides of the mine as I have described it would cost 800,000*l.*; but the subsequent rise in the price of labour proves that that sum was below the mark, and, notwithstanding the work performed since that time, it will even now require 800,000*l.* to make the Kimberley Mine secure and in proper working order; add to this 200,000*l.* for loss in not being able to work claims on which taxes are regularly made for two years, and the sum of one million sterling will be a fair deduction to make from the present quoted price of the whole of the Kimberley Mine. In arriving at the above estimate I have placed the price at a medium rate; but, if I were to base my calculations on the amount charged by the Central Company for taking out the water, the mine would be far from solvent. I am here reminded to ask a question—Supposing any company here were to declare a dividend of 12 per cent. while owing 100,000*l.* which was not accounted for in the balance-sheet would it be a correct commercial transaction? There is another point to which intending investors should pay attention—the permanent character of the Kimberley Mine. In all dividend-paying mines with which I have been connected the market value of the mine is regulated entirely by the amount of reserves which can be measured, tested, and estimated to a nicety; whereas in the Kimberley Mine there are no reserves whatever, and the only thing intending investors have to examine is the mere surface of the deposit, which may cut out at any moment.

It is true Mr. Thomas C. Kitto, in his official report on the Kimberley Mine, said—"I believe the diamond deposit of the Kimberley Mine will continue much deeper than any person of the present generation will care to follow it." But this is only the opinion of one practical mining man; there was not even a trial pit in the diamond formation on which he could base a calculation—consequently, setting aside Mr. Kitto's opinion, there is no evidence that the whole of the diamond formation will not cut out in the next 6 ft. in depth, and the whole two and a-half millions of capital be represented only by hard barren rock. I do not say that such will be the case. I only wish to place matters in their true character for the benefit of the mining public, and to caution them against being led into mines that are deep, dangerous, and extravagantly managed, while there are new mines in the neighbourhood which contain all the elements of success, and into which an interest can be purchased at reasonable rates. Even in the purchase of new mines investors should be cautious, and get the opinion of some honest person, because I have reason to believe that some of the greatest swindles of the age have been perpetrated here under the name of new mines. I notice that some person from here writes to the Journal assuming certain things; of course, assuming they get dividends, the natural assumption is they have been earned from the mine; but it is a notorious fact that managers of companies who assume so much never pay dividends, and have generally to support a fictitious reputation by underhand means.

Yesterday the mining board held one of its usual weekly entertainments, at which there were nine members. The entertainment commenced by a short prelude, in which all the members took part. Mr. Olson then accused Mr. Bottomly of gross perjury, and several members gave each other the lie direct. After four hours of recriminatory discussion the entertainment concluded by a resolution to appoint a short-hand reporter to the board. There is not much hope of the prosperity of the Kimberley Mine until this august body becomes defunct.—*Kimberley, Oct.* 12. CORRESPONDENT.

SANTA CRUZ SULPHUR AND COPPER COMPANY.

SIR,—Some time ago the directors sent a circular to the shareholders giving the result of a cargo of ore from this mine, intimating at the same time that the analysis was not up to their expectations. Since then we have heard nothing from the mine. Copper is rising in price; the shares of Mason and Barry are in demand at 18⅛; the Rio Tinto, 26½. The Santa Cruz at 50 per cent. discount, with nothing doing. As my brother writes—The prospectus states that "the result of tests from a cargo of ore raised from the Santa Cruz mines and sold shows that it is of a similar character to that of Rio Tinto, Tharsis, and Mason and Barry." If so, why the serious depreciation in Santa Cruz shares? ARGUS.

THE SOSA-Y-MENDEZ GOLD MINING COMPANY.

SIR,—Some months since we were called upon to pay upon the allotment of these shares, since which time we have been kept in the dark as to the doings of our directors. No application has yet been made to the Stock Exchange for a settling day, so it behoves shareholders to look into the dispute with the Callao-Bis Company, and combine for the protection of their own interests.

A SHAREHOLDER.

THE EUREKA (NEVADA) SILVER MINING COMPANY.

SIR,—In last Saturday's Journal I noticed the letter of "W. E. B.," who seems to be in doubt as to whether there is such a mine in existence as the above. If he will say whether he is a shareholder or not I can tell him whether the fool or the knave predominates in his perturbed nature.—*Nov.* 10. J. S. G.

EUREKA (NEVADA) MINING DISTRICT.

SIR,—I beg to hand you my usual budget of news received from this mining centre:—

At no time in the history of Eureka has the general mining outlook of the district been so favourable as at present.

New mining strikes in this district are becoming quite common.

In the past nine months Eureka Consolidated has paid $250,000 in dividends, and the Richmond Company $575,000.

During the past year 33,983·7 tons of ore have been reduced at the Eureka Consolidated Mining Company's furnaces, including 3069·4 tons of custom ore; 5777 ft. of drifts have been run and 1081 ft. of raises and winzes. The principal portion of the ore extracted from the mine was taken from the 8th and 10th chambers.

The reports from the Eureka Tunnel continue to be very flattering. When the miners left work last evening the breasts looked stronger than at any time previous, and the character of the ore of the same richness as that first encountered. About 20 tons of ore have so far been shipped to the Eureka Consolidated furnaces, and another shipment will be made as soon as the sacks can be procured. There is no doubt but that the tunnel will soon play an important part among our mining enterprises.

Several parties visited the Eureka Tunnel bonanza yesterday, and pronounce it immense.

If Sierra Nevada had such a bonanza as is in the Eureka Tunnel the stock would be selling for $300 per share.

A 10-ton shipment of ore was made from the Eureka Tunnel yesterday.

The stockholders' meeting of the Eureka Consolidated will be held to-morrow.

On Tuesday last the miners working in the west drift on the sixth level of the Richmond Mine encountered a new and extensive body of ore. It is not yet known how large the body is, but it is thought to be extensive and very rich. Previous to this find there was ore enough in sight to keep the furnaces running for a year. The probabilities now are that there is an abundance of ore for a two years' run. After 11 years extraction it would seem as though the Ruby Hill ore body was inexhaustible. We congratulate the company on their new bonanza.

Ex-Congressman Thomas Wren passed through Silver State yesterday going west. He said what seemed to be the largest body of ore ever discovered in Eureka was found in the Richmond Mine, between the 600 and 700 ft. levels, last Tuesday. He considers it the most important mining discovery of the year, and says "there's millions in it."

From present appearances there is no likelihodd of a coal famine at the Richmond and Eureka furnaces the coming winter. Both companies have a splendid supply on hand, and more coming in daily.

An immense supply of wood has been stored in the basin at the mouth of Goodwin Canyon. It is said to belong to the Richmond Company.

Superintendent Rickard of the Richmond, and Manager Dowlin of the Ruby and Dunderberg, will leave for London about the first of the coming month.

The new Consolidated works are looming up like a promontory, and are visible for miles down the road.

Work in the Centennial Mine will be started up this week under the superintendency of Jack Kermeen.

John Callagher expects shortly to commence work upon the Josephine Amy claim on Adams Hill.

Superintendent Robinson, of the Bay State Mine, arrived in town yesterday. He reports the mine as looking well, and says he has just let a contract for hauling 100 tons of ore to the Richmonds works.

Active mining operations are being carried on at the Bowman.

The Monument Tunnel Company, while working at the opening of their new tunnel site, yesterday struck an immense body of galena ore. As yet there have been no assays made of it, but the indications are that it is a rich find. It is seldom that a tunnel enterprise starts out with such encouraging prospects.

The Irish Embassador Mine at Secret Canyon is turning out some very high grade ore.

The Eureka Tunnel Company have made several shipments of ore the past week to the Ruby and Dunderberg works. They will soon make daily shipments.

About 40 tons of high grade ore have been shipped from the Eureka Tunnel to the Ruby and Dunderberg reduction works this week.

The Ruby and Dunderberg works were again started up early yesterday morning, and are running nicely.

John E. Jones and others have been adjudged by the Court the sole owners of the Enterprise Mine on Prospect Mountain, and will immediately start work on the same.

Good ore is coming out of the Silver Connor Mine.

John Huebner informed us yesterday that his new find on Prospect Mountain improves as development is made.

Large quantities of custom ores are daily being delivered at the reduction works.

Superintendent Strong, of the Geddes and Bertrand, has completed the grading for the new mill, and is now ready for the carpenters.

Large shipments of ore continue to arrive from the Geddes and Bertrand Mine at Secret Canyon.

The Geddes and Bertrand Mine continues to send in large quantities of ore for reduction.

London, Nov. 9. RUBY HILL.

MINING IN NOVA SCOTIA.

SIR,—The long interval which has elapsed since I last wrote you as to the condition and progress of mining affairs in this province of Nova Scotia is mainly due to the difficulty, mentioned in former letters, of procuring information from the source whence it ought to emanate—that is, from the office of the Provincial Department of Mines. There is, as is natural to expect, a prevalent disposition among miners themselves to maintain silence as to their own doings and prospects, except where they have an especial object in acting otherwise. To the Mines Office, however, they are by law required in effect to apply for the right to mine at all, and, except in a very few localities, for the ground upon which their operations are to be carried on. They are further required to make to that office, under oath, monthly and quarterly returns of the results of those operations. Were these requirements of the law duly enforced, and were the returns thus received carefully tabulated and published, as was the case in former years, we should, at the termination of every calendar month, or at the farthest of every quarter, have available for our information at least a close approximation to a correct statement of what had been effected during the period under review. As it is, there are many rumours afloat that the law is not strictly enforced, or is administered with great partiality. Unfortunately these rumours are not without foundation; but as to what extent they are well founded I am unable to say. Then, as to official information. The Mines Department only deigns to make utterance to the public once a year—that is, when some time after the meeting of the Provincial Legislature, usually in March or late in February, the Commissioner of Mines makes his report for the year ending with the preceding December. Thus, like others in pursuit of knowledge as to recent mining affairs in this province, I have been under the necessity of pursuing that knowledge under difficulties. Still, an exceptionally intimate acquaintance with the various mining districts and the men operating in them has afforded me rather exceptional opportunities of acquiring such information. On the other hand, that information is necessarily of a general character. I can scarcely venture upon statistics.

With these deprecatory intimations I may say, then, that during the past spring and summer, and thus far in the autumn, there has been much activity in our gold districts. I mean that the activity is great as compared with that of several previous years, and that this assertion applies to most, but not all, of such districts. I believe that this activity will show a proportionate result in the year's product of the precious metal. Still, in this respect my anticipations may not be realised, as I have already had to admit in a former letter that they were not, for the year 1880. I have said that this marked activity has not characterised operations in all the mining districts. It happens that it has been less observable in those wherein mining was in former years carried on upon comparatively a large scale, and with the most noted success. But this fluctuation of speculators and operatives, back and forth from one mining field to another, has always been a characteristic of gold miners, not only in Nova Scotia, but everywhere else where such people are found. Among the liveliest districts thus far during this current year have been Montague and Caribou, both in the eastern section of Halifax county. In the latter especially, and at Moose river, in the immediate vicinity of Caribou, the successful activity exhibited during the season seems to ensure large operations for years to come. During the same period Tangia—where first gold was mined in Nova Scotia, but since had many ups and downs—has been experiencing a revival of prosperity. The same may be said of Renfrew, which had become quite lethargic. Most of the other districts have shown a fair degree of activity as compared with the operations of previous years. An exception, however, must be made in the case of Sherbrooke and Wine Harbour, which—but more especially the former—have been noted in all former years for the extent and productiveness of their mining works. Still, I am far from anticipating that the dulness which during the current year has reigned in these two districts, as also in the neighbouring one of Stormont, will prove to be of long continuance. On the contrary, I have every reason to believe that they will at no distant day become more famed and more justly famed as auriferous fields than they have ever yet been.

I must say a few words as to recent discoveries and of new gold fields being opened up. The partial revival last spring of the gold excitement of long previous years has led during the ensuing months to a good deal of prospecting. This led, as a matter of course I must say, to various discoveries of gold in previously unsuspected sites, and to the development of paying lodes where gold was previously only just known to barely exist. Among the most important and promising of these exhumations, I will only mention those of Chizzetcook and Killag. Chizzetcook is a settlement lying directly upon the Atlantic Coast, about 18 miles to the eastward of Halifax. Its inhabitants are exclusively Acadian French—a relic of the old population which dwelt hereabouts when Nova Scotia was still under French domination; and, by-the-bye, there may be seen to-day, although so near the provincial capital, with its modern fashions, the same old costumes which were worn in Normandy and Brittany over 200 years since. Well, almost in the heart of the settlement—I might almost call it an extended village—of Chizzetcook, and close by the sea shore, exceedingly rich auriferous quartz veins have been discovered. Again, Killag is the name of a branch of the east river of Street Harbour. Along this stream and near the boundary line between the counties of Halifax and Guysborough, important gold discoveries have been made. I have not been upon the spot myself, but I have seen a large and very fine collection of specimens from there; and, judging from their exceeding richness, from the appearance of the enclosing quartz, and from what I am credibly informed are the dimensions of the auriferous lodes, I have no hesitation in saying that the Killag, like Chizzetcook, must soon rank among the most productive gold districts of Nova Scotia. I believe that in former letters I have mentioned, as an illustration of the accessibility of all Nova Scotian gold deposits, that there is no spot in the province which is more than 30 miles from navigable water, whilst few places are even so remote from the seaboard. The site of these Killag discoveries is far within this distance—indeed, I believe it is only about 15 to 20 miles from the sea side, yet with one exception it is the most remote from navigable water and from settled country of any Nova Scotian gold mine. The exception is the district of Fifteen Mile Stream, itself only a few miles westward of the Killag. I must not omit to say here that the few—and unfortunately only a few—enterprising and persevering men who for years past have been toiling at this Fifteen Mile Stream under disadvantages which are exceptional in the Nova Scotian gold fields, have this year been reaping a rich reward for their labour.

Whilst referring to new discoveries I must not omit to mention those of Salmon river, almost at the extreme eastern limit of Halifax county, and in about the longitude of the Killag "find," although southward and quite near the Atlantic shore. The openings made here during the earlier part of the season revealed gold deposits which in richness and apparent extent have not been surpassed, even if equalled, by any elsewhere in the province; but unfortunately the principal mine has become the subject of litigation, which has thrown a spell over the mining works. Thus regarding our auriferous regions throughout, there seems no reason whatever to doubt that Nova Scotia may again soon attain—nay, far surpass—its former prosperity in gold mining. I have myself no doubt of its speedily attaining that end unless the honest efforts of enterprising men become hopelessly paralysed through official incapacity and wrong-headedness.

In the autumn of 1880 there was held in this city a Provincial Exhibition of Works of Industry, &c., of which I think I sent you some account, noting its special poverty in the mineralogical department.

* The details of this meeting appear in another column of this day's Journal.

This year, during the last two weeks of September, we had here not merely a provincial but a Dominion exhibition, and the second of its kind, which are hereafter to be held yearly, changing from one province to another. Although avowedly a Dominion affair, by far the greater number of exhibitors were of the three maritime provinces, whilst those from Nova Scotia alone more than equalled all the others. This can be no matter for surprise when it is remembered that from the most eastern shore of Nova Scotia to the most western towns of settled and cultivated Ontario—say, Sarnia or Windsor—the distance is not less than that from London to Constantinople. Still, competitors come to this Halifax Exhibition from as far west as Toronto, 1200 miles distant.

Upon this Exhibition generally I need not dwell at large in communicating to a paper almost exclusively devoted to mining affairs. I will only say that, upon the whole, the show was considered by disinterested observers a creditable one, the exhibitors not being quite so numerous as they might have been, and as was expected, but the articles exhibited being for the most part of a high class. The products of the soil—cereals, roots, and fruits of the sorts exhibited—probably could not have been surpassed by those of any country. The horses and black cattle were good, and, like those of all cattle shows in this province of recent years, were a manifest improvement upon those seen in last preceding exhibitions. The same may be said, although in a less notable degree, of sheep and hogs. The poultry show was unquestionably good both as to the number and quality of the exhibits. The dogs—for there was a Dog Show, too—although not numerous, nor representing very many breeds, were good of their respective kinds. The products of the fisheries were good, of course, as they always must be in this province, when those engaged in fisheries take any trouble to exhibit their products. Manufacturers made a fair show of such goods as might be expected as colonial products. The most noteworthy were dairy products, partlcularly excellent, by-the-bye—agricultural implements in all their varieties, stoves in ditto, ship and boat models, and materials employed in their building, carriages on wheels and runners, wollen cloths, and for the first time in a Nova Scotian Exhibition, machine made cotton goods.

It remains only to notice the Mineral Department. In discussing this subject last year I argued that this could not be expected to be properly represented unless the matter was taken in hand by the Provincial Administration. This year, although not by any means what it ought to have been, the mineral department of the Exhibition was still prevented from being a failure, and this mainly through the personal exertions of Mr. Edwin Gilpin, Provincial Inspector of Mines, and Dr. Honeyman, Professor of Geology, &c., of Dalhousie College. Here there was to be seen—I might almost say as a matter of course—a fine display of gold in nuggets, dust, and quartz. Next in point of popular attraction were the coal exhibits. There were upwards of 20 of these, variously representing the qualities of coal or the thickness of seams worked in 14 different collieries distributed between Cumberland, Pictou, and Cape Breton counties. I omitted to mention above, in referring to the general mining operations of the current year, that all the collieries in the province which have been working at all this year have been hard pressed for months past to supply their customers—indeed, some of them, I understand, have been quite unable to meet the demands made upon them.

Scarcely, if at all, less interesting than the coal exhibits was the great display of iron ores. There were specimens from Nictau, in Annapolis county, from Londonderry, Brookfield, and Upper Stewacke, in Colchester county, Battery Hill, Albion Mines, East River, and Sutherland river, in Pictou county, from Guysborough county, from Big Pond and Grand Mira, in Cape Breton county, and from Sackville, in New Brunswick. The specimens were all of excellent quality, and came respectively from large deposits, and every one of the sites from which they were obtained, besides many others in Nova Scotia, offer superior facilities for the mining and manufacturing of iron. As things are, iron is now manufactured at Londonderry only.

Among other mineralogical specimens shown were lead and silver ores from Smithfield, in Colchester county, and from Salmon river, in Cape Breton county; both of them very fine exhibits. There was also a fine show of silver ore from Nigadoo, near Bathurst, in New Brunswick. Fine samples of copper ore were shown from near Fredericton, New Brunswick, and from Hopewell, in Pictou, Nova Scotia; but copper might have been much more largely represented. Hants and Cumberland counties both contributed specimens of manganese. I must not omit to mention an exceedingly fine specimen of ore of antimony from near Fredericton, New Brunswick, and taken, I am assured, from a very large deposit of that mineral.

Such is a condensed account of a very scrimp exhibition of what Nova Scotia and New Brunswick can produce in the way of metallic minerals; but it may serve to give some faint indication of their undoubtedly vast mineral wealth. GNOME.

Halifax, Nova Scotia, Oct. 23.

GOLD MINING ASSOCIATION OF CANADA.

SIR,—I notice in last Saturday's *Mining Journal* that Mr. W. Moodie, of South Frances, contributes a note respecting the Gold Mining Association of Canada. Mr. Moodie is doubtless well acquainted with the subject of which he treats, but as I observe my name mentioned in his letter I beg that you will kindly allow me the opportunity of removing any wrong impression caused by the letter from me which you were good enough to insert on a previous occasion. I have only to say that personally I have no knowledge of, or acquaintance with, either Mr. Humphrey or Mr. Chapleau, nor have I ever visited Canada.

My information, which I communicated to you, was, however, derived from so reliable a source that it seemed to me a public duty to make it known through the medium of your valuable periodical. Publicity of facts would appear requisite when failure in prospectus promises has been made. Such a course is the only one open, in order to warn those who might otherwise suffer from a repetition of over sanguine estimates of profits to shareholders. DU LOUP.

London, Nov. 9.

GOLD MINING ASSOCIATION OF CANADA.

SIR,—I have read Mr. W. Moodie's letter dated Oct. 18, appearing in last week's Journal. I presume Mr. Moodie is an official of the Canada Gold Company. Mr. Humphry has evidently roused a "hornet's nest" about his ears. I am glad I have not the pleasure of his acquaintance. I have a strong objection to people who fall into "hot water." I am much obliged to Mr. Moodie for his somewhat patronising remarks about my letter.

Although I have never been in Canada, and do not know any of the gentlemen who have been connected with the Gold Mining Association of Canada, I can assure Mr. Moodie that I am, probably, kept as well informed as he is about the proceedings on the property of the Association. In conclusion, I cordially hope that the promises held out in the prospectus of the Association will be realised. Appearances so far do not seem very bright, at least such is my opinion.—*London, Nov.* 8. OBSERVATEUR.

THE DON PEDRO MINE.

SIR,—The few but pregnant words on the Don Pedro Mine of your Brazil correspondent of Oct. 29 give a good hint as to how things are going on at the mine, and now to cap that comes an extract in atrocious English from the "mine engineer," published in your same issue of Oct. 29, in all good faith by the office, with the approval (save the mark) of the consulting engineer of the company, giving vent to a new discovery in hydraulics, to which I respectfully call the attention of all hydraulic engineers that on pumping the water a certain depth in the shaft of the mine the water in the galleries, &c., assumed an inclined position, and so rushed with increased velocity to the main outlet, thus keeping the level of the water there constant for a time, while the engine was all the time really forking. This is a specimen of the engineering knowledge and skill that may have been one cause of the ruin of this most unfortunate company. I now ask the administration and the consulting engineer if it is not just possible that the fact that the engine can drain no deeper is owing to carelessness in not making the proper calculations in the case, and that the engine has reached the limit of its power to raise water, and must have assistance. And now you Don Pedro shareholders, the most docile flock of sheep that ever flocked to a meeting, are you going to allow all the late capital subscribed to go the way the rest has gone in useless wages, unless you move in time and insist in the small amount of money in hand being spent in buying additional pumping power, getting independent advise if possible. More capital will certainly be asked for, if not subscribed the threat that has been uttered will be put into effect. Some men who know the mine will wind-up the company, subscribe a small sum, put up proper engine-power and pump out the mine, and get gold in as many months as you have waited years.

Can you support longer an administration that has spent 50,000*l.* in pumping eight years, and can only show a mine full of water, a broken down worthless wheel, a new engine, a pet hobby equally useless costing less than 2000*l.*, and that is all, the rest, 48,000*l.*, in wages absolutely. Cannot such facts before you rouse you to alter this state of affairs. Look at the price of the shares, shares of a mine known to be good, and amply supplied as you think with machinery. Can anything be more significant of the estimation the present administration, not the mine, is held in by outsiders, an administration that would wreck any mine no matter what sum you subscribe. Has hope deferred, or the continued pumping that has gone on for years washed the spirit out of you that you dare not move? If you do not, or do not do so early, there is nothing but ruin before you, and that early next year. I have subscribed my proportion of each new issue and more, but I shall do so no more. I see it is hopeless, the administration is too bad altogether.

A DON PEDRO SHAREHOLDER.

YORKSHIRE COAL TRAFFIC TO LONDON.

SIR,—Your Barnsley report in Saturday's Journal states—"It appears Mr. Thompson's scheme for the supply of London with inland coal has fallen through for some cause unexplained." As the ground was never financially broken by the combined coalowners matters remain in perfect abeyance, or rather in a chaotic state, as I certainly do not consider I can consistently manipulate the initiative more than I have done. It rests with the combined coalowners, bankers, &c., to come to the front. The metropolitan coal trade has undergone a considerable change with the Marquiss of Londonderry taking a river-side wharf, and retailing his vast Durham output at a considerable reduction on current selling price of Durham coal. It is evident the coal merchants "jours de fete sont passes," when we behold Rickett, Smith, and Co., and Herbert Clarke hawking coal in 1 cwt. sacks through the streets. All required of the coalowners was to co-operate with me in forming a syndicate, as capital to any extent can be procured.—20, *Little Tower-street, Nov.* 8.

W. J. THOMPSON.

GELLIVARE IRON ORE EXPLOITATION.

SIR,—My last letters in the Journal of Oct. 22 and Nov. 5 leave me only to notice the great objection to gravitation railways for passenger traffic, with stations at short distances as on existing surface railways, entailing numerous stoppages. Mr. Robert Stephenson's report on the formation of a railway with undulatory planes to the directors of the London and Birmingham Railway Company, stated—"With surface railways the power to halt at any given point is a great object, impracticable with a gravitation railway, the smallness of the inclination admissible on surface railways lessens very little the friction." The express trains emerging from King's Cross, St. Pancras, Euston, Paddington, as well as from two transpontine systems owe their speed (compared with the gravitation system slow place) to a long run without stoppage, avoiding all but first-class stations. In Lapland there is no population nor passenger traffic requiring frequent or indeed any stoppages between the termini, the line being laid out for the transport of iron ore in a crude or manufactured state, wood, game, salmon, and other fish, &c., in which there will be an immense and highly remunerative trade to England. When the time arrives for giving passenger traffic a thought there will not be much difficulty in extending facilities suitable to that region. The impossibility of the brake acting upon rolling stock at a great velocity on a surface railway as shown in the sequel involves certain destruction to life and rolling stock. Wooden railways exist not only in America, as I named in a previous letter, but as the eminent railway engineer and coalowner, the late Nicholas Wood, states in his Treatise on Railroads. The railways in the North of England, the pioneer of railroads, were constructed of wood, with wooden rails without plates or iron rails, following the undulations of the surface. On very steep descents the work was frequently laid off for many days on account of wet weather, a sudden shower of rain when any of the wagons were on the declivity set the whole away, destroying everything in their course, and finally were dashed to pieces at the bottom, notwithstanding the brake was applied which was of no use with the great velocity. Dr. Lardner stated at the Bristol meeting of the British Association that "an extraordinary difference arose even on a level railway in wet weather, giving the engine an immense additional power by reduction of the friction." The magnificent certainties of the great law of gravitation or the wonderful development of mechanical power began 20 centuries ago by Archimedes, re-discovered by Galileo, advanced by Pascal, carried out by Hugghens and d'Alembert, deserve investigation by all serious men of solid culture, although, according to the presidential address of the Institution of Civil Engineers last year, the laws which govern mechanical action and forces were very imperfectly understood in the early days of the Institution, and a report of a Royal Commission on railways brings it down to the present time, by stating "There exists a great want of uniformity in practice on many most important matters relating to railway engineering, showing how imperfect and deficient it yet is in leading principles."

No fact in meteorology is more satisfactorily established than the intimate connection subsisting between gradients and wind. The wind is no exception to the rule of railway wagon on a level remaining at rest, but on an incline moving with varying velocity according to the steepness of the gradient, a gradient in the atmosphere being ascertained by synchoral barometrical observations at different places. Having found it desirable to make these remarks before I venture to encroach further on your valuable space by giving effect to the concluding portion of my last week's letter, I hold myself at the absolute disposal of legitimate investigation with the most ample elucidation.—20, *Little Tower-street, Nov.* 8. W. J. THOMPSON.

THE MARBELLA IRON ORE COMPANY.

SIR,—The various romances, to use a mild term, which have been circulated about this company during the last few days have, I presume, had the effect intended—to reduce the price of the stock for interested motives. It would be as well to state some of the most prominent of these reports.—1. That the lease with Messrs. Heredia is on the point of expiring.—2. That the contracts for ore are rapidly running out.—3. That the mine is worked out and cannot possibly last much longer. I answer—1. At the general meeting of the company held in March, 1880, the Chairman stated that the lease with Messrs. Heredia was for five years from March 1, 1880; it has therefore three years and four months to run. No difficulty need, I think, be apprehended in renewing it if the board should desire a renewal, as it has been a highly profitable arrangement for Messrs. Heredia, who have no outlet for their ore except over the Marbella Company's railway and pier.—2. The existing contracts are at the rate of 13s. to 14s. per ton f.o.b., and extend into next September for the whole of the production.—3. The mine has now been worked for a period of about 40 years, and, from the nature of the deposit, to all appearance is likely to last for as long if not double that time. The fact is that the extent of the deposit is not really known to any one. To ascertain its depth a shaft would require to be sunk on the ore, and a drift would require to be made to prove the width. This has not been done, for the simple reason that it has not been considered necessary. The working of Messrs. Heredia's mine (it being situated between two portions of the Marbella Mine) will greatly facilitate the working of the latter, as it will be the means of opening out enormous quantities of ore, which could not have been so readily got at except through the Messrs. Heredia's workings. The Spanish mining laws give every facility for working over neighbouring mines, so that when the present lease of Messrs. Heredia's mines expires the company could fall back upon its own property should there be any difficulty about renewing the lease, and, in fact, be independent of Messrs. Heredia altogether.—Present Profits: According to the last report issued by the board the output for the first half of this year was 30,000 tons, and they expected that there would be an increase during the present half-year. We may, therefore, calculate the total output for this year at about 70,000 to 80,000 tons, and as the ore cannot be costing more than about 6s. per ton f.o.b., a very large profit must be accumulating.

A SHAREHOLDER, AND ONE WHO HAS REPEATEDLY VISITED THE MINT.

PREVENTION OF BOILER EXPLOSIONS.

SIR,—Since my return from Colorado my attention has been called to the remarks on the Prevention of Boiler Explosions contained in the Journal of Oct. 8. I have been led to look into the question, and have ordered two of Smith's Patent Steam Sentinel Safety-valves to be fitted on two boilers at Langston Mine in Devon, and shall introduce them whenever I can, as I am satisfied that the use of them will largely reduce the risk of boiler explosions, and the liability of mine owners under the new Act.

T. CURRIE GREGORY, C.E., F.G.S.

Queen Victoria-street, Nov. 10.

THE ROCK-DRILL COMPETITION AT THE CARDIFF EXHIBITION.

SIR,—Respecting Col. Beaumont's letter published in last week's Journal the facts are as follows:—Messrs. Beith, on behalf of the Beaumont drill, Messrs. Hathorn and Co., proprietors of the Eclipse drill, and ourselves for the Normandy drill, all agreed to make a public trial on a block of Cornish granite, as arranged by Mr. P. C. Hurry, Chairman of the Mechanical Section of the Cardiff Exhibition. The Beaumont drill started first, and worked without stopping for 2 min. 30 sec., and until a part holding the chisel suddenly gave way, when Mr. Beith who was personally working this drill, shut the air off, and the hole bored was measured and stated to be 7½ in. deep. The Normandy drill started next, and in 2 min. 10 sec. bored a hole 10¼ in. deep, and was then stopped being through the granite block, the blow of the chisel knocking off the remaining thickness of the block, which was over 1 ft. thick. The Eclipse drill started next, and in 2 min. 25 sec. bored a hole 10⅛ in. deep, and was stopped, being also throngh the granite. If the Beaumont drill had not suddenly broken down, and continued boring at the same rate, it would have required 3 min. 24 sec. to bore a hole the same depth as the Normandy did in 2 min. 10 sec., and the Eclipse in 2 min. 25 sec.

Boring holes in blocks of granite at a public trial above ground, where every one can see the trials are fairly conducted, ought to be the most satisfactory, for if they do well above ground so will they below if fairly used. The proprietors of the Beaumont and Eclipse drills would have been quite content with the Cardiff trial had their drills come out first as they expected, but as they did not they now run down the trial. We may add that only those who go into the business of supplying rock-drills have any idea of the difficulties thrown in the way to prevent the merits of newer machines becoming duly appreciated, especially when, as in our case, they are at least as efficient, and far simpler and cheaper in first cost and in repairs.

London, Nov. 9. A. NORMANDY, STILWELL, AND CO.

COST BOOK AND LIMITED LIABILITY.

SIR,—Mr. Symons intimates that shareholders in Cost Book mines are liable for all the debts of a company. I think I could prove that in this statement there lies an absolute fallacy. It will be admitted that if a man marries he makes himself liable for all the debts his wife may contract, but is it likely that any person would use this as an argument against marriage. In the face of Mr. Symons's caution against unlimited liability, his argument would not influence me against entering into the matrimonial state, and I would certainly urge your readers to hold by their Cost Book shares, which are evidently both very popular and negociable. I never held a mine share in my life, but, in consequence of the letters which have appeared in the Journal and close investigation into the real liability of shareholders, which I beg leave to say is not unlimited, in Cost Book mines, I take this opportunity of stating that when I do hold mining shares I shall endeavour only to do so subject to the provisions of the Cost Book. Taking a broad view of the case, and with a knowledge of all the facts, I can conceive of no arguments more foolish than those which Mr. Symons endeavours to advance.

WIDE AWAKE.

COST-BOOK VERSUS LIMITED LIABILITY.

SIR,—The advocates of the Cost-book System make a great flourish of the small number of shares in which these mines are divided, and point with pride to the fact that so many of them have never been wound up, whilst most of the limited ones have come to that disastrous termination. I will grant that this has been the case with many of from 15,000*l.* to 20,000*l.* capital. But why? Simply because such a sum is absolutely insufficient for the proper development of any mine, and to provide it with machinery, especially if it does not make its riches shallow. Vendors of properties do not give them away to limited companies, and if the price asked is frequently a heavy one it is principally taken out in shares, which may become valuable, or prove worthless.

Owners of cost-book mines are not more philanthropic than other people. If they buy a mine cheaply and set it to work they expect to make a good profit (especially if they find it promising on further development), and this they do by dividing it into (say) 6000 shares, more or less, and if a few Stock Exchange brokers or market men can be induced (on favourable terms) to take an interest, a market is quickly made in the shares, which are often dealt in at a high figure, though perhaps not more than 10s. has been called up on the shares. The vendor, or owner of the mine, who of course, holds about four-fifths of the shares, now makes his profit, not in cash or free shares, but by selling his cost-book shares, subject to endless liability at a price which represents frequently 2000 per cent. profit on his original outlay, so that if shareholders in cost-book mines do not pay in meal they pay in malt, although no vendor or promoter appears in the undertaking.

One would suppose from the statements made by advocates of the Cost-book System that they never come to grief or wind-up, whereas I am perfectly certain that if reliable statistics were obtainable it would easily be shown that ten Cost-book mines have failed and been abandoned, as against every one which has been wound-up under the Limited system. I will grant that some of the oldest and best Cornish mines are Cost-book, but through how many people's hands have the shares filtered, gaining fresh blood and renewed vitality from the pockets of two or three generations? whilst the sums expended upon these mines out of their produce would reach a figure almost appalling in its magnitude, but which never figures in capital account, and this is a point that must not be overlooked, for here, in my opinion, lies the bone of contention. If a mine is to be worked as a Limited company, with any hope of practical success, 40,000*l.* is the least amount of nominal capital requisite (including purchase money), and 100,000*l.* is not too much (not necessarily for issue at the inception of the company, but to leave share capital as a reserve for future contingencies), unless fresh capital has to be created to bring about dividends.

On the Cost-book System you can go on calling up money *ad infinitum*, and for every shilling called out of your pocket, and credited to capital account, ten shillings is called out of the produce of the mine, and is never accounted for as capital. If a man's particular hobby of to-day is to advocate Cost-book mines let him do so in all fairness, but not at the expense of those who are interested in Limited mines, and whose motives (although not pharisaically flaunted before the public as being all that is truthful and honest) are doubtless for the well-being of mining industry, compatible with profitable returns to investors. In conclusion, I would remark that the only enemies to the mining business are those whose elevation of soul is such that, being all honour and honesty themselves, they tremble

lest others not similarly endowed should monopolise the whole of the mining business, and therefore to prevent such a calamity vaunt their own shares as preferable to those recommended by any other worldly minded person. It is this spirit of envy, malice, and all uncharitableness which not only injures legitimate mining (Cost-book or Limited), but drives the speculative investor out of the field, never to re-enter it.—*London, Nov.* 9. G. S. GREGORY.

COST-BOOK AND LIMITED LIABILITY.

SIR,—I read your last week's issue with great interest, but was surprised at Mr. Symons' reply. His attack on Carn Brea, Dolcoath, and West Basset was, however, most unfortunate for his argument. It is true that these mines did contract debts, but the debts were contracted by and with the knowledge of the large shareholders of almost unlimited means, who did not wish to trouble the shareholders generally about difficulty which was known by them to be only temporary, especially as there was so much on the other side to more than cover any over-draft made needful by circumstances without parallel in our time. Did any shareholders suffer from their action? No one knows better than Mr. Symons that the shareholders were infinite gainers, as the quotations of those shares to-day prove. I do not approve of anything being kept from the general body of shareholders, nor do I approve the action of the committees in the cases referred to, but the result was all the shareholders could desire.

And this is the ground of Mr. Symons' attack on the Cost-book! But no, I beg pardon. He takes us back to the year one, when Clifford flourished under the old Cost-book Act, which was really most objectionable and dangerous, but which, since the passing of the Act of 1869 "for the better regulation of mines within the Stannaries," has been superseded. Mr. Symons pictures a forlorn lady, who lived he does not tell us when—probably 20 years ago—but who was left alone to bear the burden of her folly. It was certainly very ungallant on the part of her partners, but Mr. Symons knows very well that they could not do so under the new Act of 1869, and that if they attempted it the attempt would be a criminal one, for now it is a criminal action to transfer shares to a man of straw to get out of a Cost-book company, and the officers are bound to see that full advantage is taken of this excellent provision.

Mr. Symons says that I know every partner in unlimited liability companies is liable for all debts. But I also know, notwithstanding this, that as the accounts are made up every four months, and presented to me or my agent for inspection and audit, that on these occasions I can get whatever information I like. That I can, if I please, withdraw from the business by merely giving formal intimation of my desire to do so to the secretary, and paying simply my proportion of liabilities (not more than my proportion), I can be fully released, and can claim my share of the assets of the company in due course. This is the alternative if I cannot sell my shares. I see in all this the essence of limited liability and not wholesale destruction, as Mr. Symons would have me believe. VERITAS.

CORNISH MINING, ITS UNEXPLORED GROUND.

SIR,—In surveying the unexplored mining ground of the county superficial workings, made no doubt centuries ago, are here and there seen; judging from the amount of work done from surface to so deep as the ancients could work without machinery, deeper development with present improved mining appliances can scarcely fail to be remunerative. The history of the productive mines around Carn Brea hill can be traced back to following in the wake of the ancient miners, who discovered most, if not all, the champion lodes throughout the county. The expense of opening mines of this class is small compared to reworking old deep mines, and the chances of success greater. The inference, therefore, is that there are mines to be found quite as rich as those now so famous for their tin-producing qualities around Carn Brea. The Carn Marth granite hill is in character the same, a ramble around which will not only interest the geologist, but show convincing proofs of the great masses of mineral therein hidden Starting from the western foot of it is the ancient tin workings so well known in the district by the name of Golden Calf from its extensive surface working must have produced large quantities of tin; preparations are being made to develope it deeper, a shaft has been sunk 15 or 16 fms., and a rich tin lode discovered 3 ft. wide; this mine is called South Carbis. A small outlay will suffice to open out a rich and lasting mine, and to all appearances they are on the top of one, rich tin being brought to surface. Further north you come on a series of lodes said to embrace the great flat lode now so rich in South Frances and West Basset; here also are extensive surface workings, which it has been determined to follow deeper by the erection of a powerful steam pumping-engine at Mount Carbis Mine, which has been at work about two months, and I noticed some hundreds of tons of good tinstone at surface raised from the bottom, where there is a lode (only 40 fms. deep) worth for all the length driven 30*l.* per fathom; this seems to be the discovery of a rich tin mine, and ranks high in the estimation of the mining experts around Redruth. Coming further east is the New Cathedral Mine, also in comparatively new ground, having the productive lodes of Wheal Damsel and Wheal Jewell going through the sett, which they seem to be mining in a highly creditable way, and by pursuing the course marked out can scarcely fail to meet with success. F. G. S.
Nov. 9.

TAVISTOCK AND LATCHLEY DISTRICT.

SIR,—When we consider the success of the Devon Consols Mines from 1844 to 1866, when nearly 1,000,000*l.* were paid in dividends on 1024*l.* capital, no wonder need be expressed on the new explorations in the river hills at Latchley, as the River Tamar only divides them from Devon Great Consols Mines. It would be a remarkable thing if capital was to be sent out to work American silver mines, or Indian or Venezuelan gold mines, where "distance lends enchantment to the view," and the most worthy and legitimate investments or speculations surrounding Devon Consols should be neglected. Let us suppose that a mine was discovered on the Pacific side of the Rocky Mountains, the hills of India, or Venezuela which gave $5,000,000 profits on a first capital of $5000, which was the case in Devon Consols, the result would be that very many companies would be formed in this country, probably with a combined capital of 5,250,000*l.*, which is the sum sunk during the past two years in Indian, Venezuelan, and American mining companies. Wheal Benny, at Latchley, has several lodes which will, no doubt, make a stir before long; for it is reasonable to suppose that one or more of the great lodes of Devon Consols passes into Wheal Benny. The shaft, 11 by 6, is going down on a splendid lode.—*London, Nov,* 9.
E. BREWIS.

NEWLYN UNITED MINES.

SIR,—After a lull of many years in the Newlyn district there is considerable animation displayed in the preparations for re-opening East Wheal Rose and Shepherds Mines, both of which in past times yielded such colossal fortunes. The Newlyn United Mines are contiguous to the northern limit of East Wheal Rose, all the rich lodes in which intersect these mines. There are also three north and south lodes in addition which run east of East Wheal Rose boundary. One of these lodes is 3 ft. wide, another 11 ft. wide, and the third 5 ft. wide, all intersected by an adit within a length of 20 fms. in a congenial clay slate, at a depth from surface of 9 fms. The constituents of the lodes are mundic, prian, flookan, and spots of lead ore. At a moderate depth these lodes will doubtless yield large returns of silver-lead ore. Old Shepherds east and west lode is now being driven on eastwards, and has intersected the before mentioned three north and south lodes. This lode is looking well, carrying mundic and lead; the end is 100 fms. from the tail of the adit. The miners are now sinking a shaft to meet the end of the adit for ventilation and for the discharge of ores and debris, which shaft will be sunk on the easternmost of the three lodes below the adit when that point is reached. The celebrated lodes called Middleton's and East lodes in East Wheal Rose are about 30 fathoms west of the shaft aforesaid and which will be cut shortly. The 100-in. cylinder engine now being erected on East Wheal Rose will drain these lodes in Newlyn United, thereby saving a great expense in pumping.

The miners in the district express great confidence in Newlyn United Mines, saying that it will be another East Wheal Rose, which yielded a profit of about 300,000*l.* The circumstances certainly justify very sanguine expectations, and I must congratulate Mr. Edwards, J.P., of Wolverhampton, on his good fortune in securing such a property for the small sum of 2000*l.* or 3000*l.*
Truro, Nov. 9. R. SYMONS.

WEST WYE VALLEY LEAD MINING COMPANY.

SIR,—On June 15, 1880, at an extraordinary meeting, it was decided to re-construct this company, and with this object a resolution to wind-up the company voluntarily was passed. Mr. Kitto informed the meeting that he was satisfied that the prospects of the mine will fully justify the course which I have adopted, and the Chairman stated that the time occupied in the transfer would be about three months. Up to the present date, however, no practical results appears to have been attained; and considering that the purchase of the mine is set down in the last balance-sheet at 25,000*l.*, plant, &c., 2003*l.* 1s. 2d., and amount expended on permanent works 7388*l.* 0s. 5d., whilst the debenture debt was only 3000*l.*, I think the shareholders have a right to know what has been done, and if the mine is still in the hands of the liquidator. One would think that one year and five months would be sufficient time to carry into effect the resolutions passed in June last year.—*Nov.* 7. A SHAREHOLDER.

CALLINGTON DISTRICT.

SIR,—Your correspondent "S. B." in last week's Journal conveys to us distant shareholders a welcome ray of light on the discovery in Silver Hill. But my first thought was on reading it—How came it that the board did not apprise the shareholders of so important a matter, or what value do they deem it at? However, coming as this news does, from an independent source, we appreciate it immensely, and the next time "S. B." visits the district some information as to the buildings, and also as regards the likelihood of metal being in a fair way for market, would be gratefully accepted. I am aware the mine is but in its infancy, and these discoveries go to shed lustre on it in particular and the district in general which cannot be too widely known.—*Leith, Nov.* 8. W. B.

WEST CARADON—NEW WEST CARADON.

SIR,—What a fine thing tez to be able to rite! There's Uncle Sam, he have been down visiting West Caradon and New West Caradon Mines, and sent 'ee a handsome report; and tez zackly like it is too. When I saw his tale in the Journal, I says to myself he's some braave scholard he is; but here's me and a lot of other men that knaw the mines well, and could tell 'ee a fine passle about them; but maybe the grand genelmen in London church-town would larff to see our queer words in print. Howsomever, I want 'ee all to knaw that West Caradon and New West Caradon ez, like Uncle Sam do say, two keenly mines; and as there's no cost for pumping, most of the money ez spent underground exploring and breaking ore; and weth such a pretty lode as they have now in New West Caradon, and making home close to West Caradon boundary, they will soon be doing wonders. Cappen Nicky have already sold in a few months scores of tons of ore from West Caradon, and last Monday they sampled their first passle of (computed) 50 tons from New West Caradon, and anyone as ez acquented with Cappen Nicky do knaw that his passles never come a pound under what he calls them. And when I look at the beautiful machinery and pliances he have put up, and the handy dressing-floors, with nice wooden sheds to keep off the cowld from the maidens, bless his heart; why, I do finely think upon it, mind you. When the venturers have mitten to give their first dividend, I hope Uncle Sam will persuade them to hold un on the mine and give the men a dinner; it would encourage them braave. The tutwork men and tributers would go to work after un like steam injuns, and send up such tummals of ore that Cappen Nicky would have to take the chair at the ticketings, and get as proud as fire. But no, his dear old head has been screwed on right too long for anything to turn un now. If thee ezn't too grand to put this in the Journal, I'll rite 'ee agen another time. Wish 'ee well my son; from UNCLE BILLY BUZZA.
Cornwall, Nov. 9.

GREAT WHEAL VOR DISTRICT.

SIR,—This district is well known to most mining men. For a long time it has been under a cloud, but I am pleased to say a little sun is beginning to shine in many good spots. I was rather surprised to find so many setts taken up and in the hands of influential parties. I am well acquainted with this district and know the whole lodes in the Wheal Vor district. Capt. Hodge and several gentlemen visited the old Polladras Mine. This is a good mining property, and if fairly worked will handsomely remunerate the shareholders. New Great Wheal Vor is another good property if fairly developed. I have for several weeks watched the reports in the *Mining Journal* and saw Mr. E. Orchard's remarks. I would advise the agent, being a stranger, to call in some bargain buyers to sample the tinstuff; the slabs of tin will be found to turn into white iron. I have seen a plenty of white iron from this lode which has been reported at high figures to be tin; the tin sales are the best reports. There is other lodes in the sett which produce less white iron, and no doubt when worked on will prove successful.—*Helston, Nov.* 7. MINER.

FOREIGN MINING AND METALLURGY.

Upon the principal French markets quotations have been supported with firmness at 8*l.* per ton. Plates have been held firmly at 10*l.* 12s. per ton. In connection with an important contract for 220,000 tons of rails given out by the Paris, Lyons, and Mediterranean Railway Company it may be stated that that company refused at present to use dephosphorised rails. It receives accordingly Bessemer steel rails, and the same course will be pursued until the expiration of contract. The Paris, Lyons, and Mediterranean has, however, by way of experiment, purchased from Creusot 500 tons of dephosphorised rails; these rails it has laid down at points where there is an exceptional wear and tear, so that in a few years the management will be enabled to test the real value of rails of this class. At present the engineers of the Paris, Lyons, and Mediterranean are under the impression that dephosphorised rails wear out more rapidly than Bessemer steel rails. The Northern of France Railway Company has provided for its rail requirements for several years by contracts with the Denain and Anzin Company; it is little probable that the Anzin Company will supply any dephosphorised rails, as they do not undertake their manufacture. As regards the Orleans Railway Company it has just concluded a contract for 13,000 tons of rails with the Firming Company, which will only furnish Bessemer rails.

There is comparatively little news to communicate with respect to the Belgian iron trade. It may be stated, at the same time, that the general tendency of business continues favourable, and it does not seem too much to expect that the present tone of the Belgian markets will continue. Every one appears to have plenty of work for the moment, and new orders do not by any means make default. Some purchases of old materials have been noted in Belgium upon American account. Girders have been in good demand in Belgium at fully previous quotations. A report has been circulated of late that a well known Luxembourg syndicate had been dissolved; this report does not appear, however, to have had any foundation in fact. The syndicate, as matters now stand, proposes to continue its operations until Dec. 31, 1883; the Ars works, however, no longer form part of the syndicate. The situation remains generally unchanged in the German iron trade; the orders which come to hand are generally sufficient to employ the works, and the general aspect of the markets is satisfactory. Prices have shown a tendency to advance upon the German iron markets. The German steelworks are very actively employed, and fresh orders continue to come to hand. A contract for 30,000 tons of steel rails for the Upper Italy Railway has just been received by a German steel-making establishment; the contract price is stated to be 6*l.* 12s. per ton delivered.

The aspect of the Belgian coal trade continues favourable, and the current of orders does not appear to be falling off. The iron trade still promises well in Belgium, so that as regards that important department of Belgian industry Belgian coalowners appear to have nothing to fear. Prices for coal have naturally, under all the encouraging circumstances prevailing, been well maintained in Belgium. Official returns which have just appeared show that the imports of coal into Belgium in the first nine months of this year amounted to 708,400 tons, as compared with 642,057 tons in the corresponding period of 1880, and 524,511 tons in the corresponding period of 1879. The exports of coal from Belgium in the first nine months of this year amounted to 3,077,660 tons, as compared with 3,234,503 tons in the corresponding period of 1880, and 3,140,026 tons in the corresponding period of 1879. Coke was exported from Belgium in the first nine months of this year to the extent of 662,458 tons, as compared with 599,946 tons in the corresponding period of 1880, and 451,338 tons in the corresponding period of 1879. The demand for coal has been active at Paris, householders being apparently determined to avoid the sufferings and difficulties to which they were exposed in the matter of their coal supply two years since. Prices have not varied materially at present; but, having regard to the influx of orders, an advance seems probable. The coal trade maintains a good tone in Germany.

OUR GOLD SUPPLY—ITS EFFECTS ON FINANCE, TRADE, COMMERCE, AND INDUSTRIES—No. VII.

By THOMAS CORNISH, Mining Engineer (late of Australia).
Author of "Gold Mining, its Results and its Requirements."

QUEENSLAND.

The gold discoveries of this colony were several years later than those of New South Wales and Victoria, but have proved as rich as any. There are the alluvial workings in loose earth, or in the beds of streams, and vast areas of auriferous quartz reefs which will last for centuries.

The relation of the southern, central, and northern mines was officially declared at the end of 1876. Thus of the southern gold fields, Gympic had 1075 miners; Kilkivan, 80. Of the central, Peak Downs had 194; Rockhampton, 188; Calliope, 112. Of the northern gold fields, the Palmer had 10,131; Charters Towers, 1223; Hodgkinson, 842; Ravenswood, 297; Etheridge, 182. But these numbers are constantly undergoing changes by rushes from one diggings to another.

Gold has been discovered in various points along the ranges from lat. 28½° south to 12° south, and from long. 140° to 153° east, or about 1000 miles in length by 800 miles in width.

The Palmer gold field, discovered a few years since, is in about 15° or 16° south longitude, extends over a large area of country. The heat is tropical, but gold is plentiful. During 1877, the reefs paid each miner at the rate of 250*l.* for the year. As an instance of the extreme richness of some of the reefs, 58 tons of quartz gave 6469 ozs. Gold is got also at the Cohen, Coleman, and Kennedy rivers.

The Hodjkinson quartz reefs may be termed a southern continuation of the Palmer gold field. This is another extensive field and very rich. During 1877 there were crushed 13,506 tons of quartz, which yielded 30,567 ozs. of gold, averaging 2 ozs. 5 dwts. 6 grs. per ton. The reefs from Mount Mulligan, sometimes 10 to 12 ft. wide, extend 46 miles in length by 4 in breadth. Another line of reefs is 16 miles long. At the end of 1877 the population was only 2800 Europeans and 400 Chinese.

The Etheridge, the Normanby, and the Gilbert are also extensive gold fields in the northern part of Queensland. The reefs are very rich, but in consequence of want of efficient machinery and labour, crushing is very expensive.

The Cloncurry is a long way inland, on the north side of the M'Kinlay range, and is 300 miles from a gulf port. Gold and copper are plentiful.

Charters Towers is more southward than the above, being west of the Burdekin river. This is an extensive and rich gold field. The escort in 1877 took down from thence 87,200 ozs. One crushing of 50 tons lately gave 600 ozs., or at the rate of 12 ozs. to the ton. Though situated in the tropics, the high elevation gives cool nights.

The Star river diggings are west of Townsville.

Ravenswood, the Cape river, and Broughton, are also extensive fields. Ravenswood, in two years, crushed 120,000 tons of quartz.

Among the central Queensland gold fields are the Calliope, the Cawarral, and Peak Downs, while near Rockampton are Crocodile, Rosedale, &c.

The southern gold fields are the Barnett, Darling Downs, Pikedale, Kilkivan, &c, and the oldest and most prosperous the Gympie, which in five years, with a small population, raised 1,000,000*l.* of gold, and still keeps its reputation for rich quartz. A crushing of 26 tons in April, 1878, yielded 441 ozs., and a crushing of 739 tons gave a fine cake of 5800 ozs. of gold. The average yield during 1877 was not less than 2 ozs. 5 dwts. 8 grs. per ton. The waste tailings of the machine assayed in London were found to contain from 2 ozs. to 18 ozs. of gold, and from 1 oz. to 5 ozs. of silver to the ton. All that had been thrown away from the difficulty of extracting the metal

The gold export may be estimated at upwards of 1,500,000*l.* per annum. A large amount being carried off unacknowledged, especially by the Chinese.

The enormous area of auriferous country opened up during the last few years in this colony, shows plainly that with efficient machinery, a good water supply, and more population, Queensland will in all probability prove the richest and most productive of the Australian gold fields.

The great influx of Chinese to the northern gold fields a few years since caused the Government to pass a law imposing a penalty of 10*l.* for their admission to the colony and 3*l.* a year for miners' rights, and their business licenses 10*l.* annually. This arbitrary and questionable method of dealing with the influx of Chinese was not creditable to the liberality or practical judgment of the Queensland Government. At the time the matter was under discussion I suggested a method of dealing with the Chinese influx in a way that would have been more advantageous to the European miners and the colony as well. My proposal was that as the tropical heat is too much for the European miner to work with advantage in northern Queensland, that they should have been allowed to hold larger areas for mining claims, and utilise Chinese labour for working either on wages or royalties. That hordes of alien Chinamen should not have been allowed to overrun the best gold fields discovered by the enterprise of European miners, and ultimately excluding them from the advantages of their own discoveries. But that no alien Chinese should have been allowed to take up or hold mining claims until they had been (say) five years on the gold fields, and become naturalised citizens. By this manner the northern gold fields of Queensland would not have been inundated by such a large influx of these (not altogether desirable) colonists, to the injury of the enterprising miners who discovered and developed the auriferous resources of the country. But their labour might have been directed and utilised by and under the skilled supervision of those to whose energy and experience these valuable discoveries were made known.

OTHER MINERALS THAN GOLD.—Queensland possesses large areas of country containing copper, tin, iron, galena, silver-lead, coal, and precious stones. The Peak Downs Copper Mine sent down 1,000,000*l.* worth of copper, and paid 215,000*l.* in dividends in five years. Other copper localities are Kroombit, near Calliope, Mount Wyatt, west of Mackay, Star River, Upper Dawson, Rawbelle, Crossbrook, Normanby, Nebo, Copperfield river, Mount Orange, Lynd river, and Mount Gotthardt, Cloncurry, and others. For the year 1876, 9334 tons of ore made 2102 tons of copper.

TIN.—The stanniferous or tin country already discovered is estimated at 500 square miles; some of the deposits of stream tin have been very rich, and lodes of tin are now being satisfactorily tested. The large deposits of stream tin discovered in Queensland and Tasmania during the last ten years has materially reduced the price of tin in England, and affected the value of the tin mines in Cornwall.

IRON.—The iron ores, however rich, cannot at present be worked for want of capital and labour.

Galena silver-lead has been discovered at several places; cinnabar, for mercury, in several lodes at Kilkivan; cobalt with nickel at Port

Curtis; bismuth, often inclosing gold nuggets, at the Cloncurry; zinc-blende in the Wide Bay district. Antimony in sulphates and oxides has been got at St. John's Creek in Burnett district, and in a 2-ft. lode at the Hodgkinson manganese and plumbago may be added to the metal list.

COAL.—This valuable mineral is placed by Mr. Daintree, the geologist, over an area equal to half of England, and very probably may run much farther.

PRECIOUS STONES.—Diamonds, sapphires, garnets, topazes, aquamarine, &c., are picked up in the tin streams. The sardony and fine agates are common in the north-west country, especially at the Cloncurry. Opal in large quantities is gathered in trachytic conglomerate and sandstone of the Western Barcoo lands.

The reports as furnished to the Department for Mines, Queensland, by the resident wardens on the gold fields for the year 1880 are of an encouraging nature. In the report on the Charters Towers gold field the warden states—"It has been proved beyond doubt that the quality of the stone does not deteriorate at the deeper levels, and lucrative mining is assured for many years to come. The stone crushed during the year amounts to 39,285 tons, yielding 68,593 ozs. of gold, assaying 1 oz. 14 dwts. 22 grs. per ton."

The Gympie gold field has had a considerable increase in the yield of gold. "Comparing the returns for 1880 with the preceding year, there is an increase of 4618 ozs., as also an increase in the number of miners, and a considerable area of new ground taken up."

On the Palmer gold field quartz mining will, no doubt, take the place of alluvial mining, for which this field has been so famous, the Ida Company having crushed 3064 tons of quartz during the year, which yielded on the average 2½ ozs. of gold per ton.

It is difficult to convey the idea of what enormous mineral resources Queensland possesses. Auriferous country has been proved extending over nearly 1000 miles in length north and south, by several hundred miles east and west, the ground partially worked on covering an area of 15,725 square miles, and on which are only employed 8322 miners, including 4731 Chinese, being only about one miner to every two square miles. The number of distinct reefs proved to be auriferous is 1578, and as there are only 3046 European quartz miners working them, it shows the large and profitable field there is for the operative miners and capitalists.

Table showing average yield per ton of quartz crushed on the several gold fields during the year 1880, as shown by returns furnished by the owners of quartz crushing machines:—

Gold field.	No. of tons crushed.	Gross yield. Ozs.	Average p. ton. Oz. dwt. gr.
Palmer	3,016	6,921	2 5 21
Hodgkinson	19,472	25,096	1 5 19
Etheridge and Gilbert	4,455	8,821	1 19 5
Cloncurry	406	490	1 4 1
Charters Towers	39,285	68,594	1 14 22
Ravenswood	13,479	12,620	0 18 10
Clermont district	2,293	1,089	0 9 11 5-6
Gladstone district	785	3,430	4 7 9
Gympie	22,562	39,511	1 15 0

Or a general average of 1 oz. 11 dwts. 12 grs. per ton; this return does not include the yield from pyrites.

The average earnings of the quartz miners on the six principal reefing districts of the colony during the past year has been as follows:—Charters Towers, 267*l.* per man; Gympie, 185*l.*; Hodgkinson, 273*l.*; Ravenswood, 208*l.*; Palmer, 277*l.*; and Etheridge and Gilbert, 100*l.* per man.

With increased energy and the judicious investment of capital, and the organisaiion and direction of mining labour, the colony of Queensland has before it a great future as a gold-producing country.

SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE INSTITUTE OF MINING ENGINEERS.

The monthly meeting of members was held on Monday in the Mining Museum, Dudley,—Mr. WILLIAM FARNWORTH (Vice-President) in the chair; and there were present, among others, Messrs. H. Johnson, F.G.S., Thomas Parton, F.G.S., David Peacock, W. J. Hayward, John Hughes, Tregloun, John Field, Jonah Davis, R. Latham, D. Rogers, A. Bowhley, J. Cooksey, S. Bailey, John Broun, J. Bailey, T. H. Bailey, J. F. Addenbrooke, Marsh, Waring, Watkins, Cole, Isaiah Foley, and Alexander Smith, M.I C.E., secretary.

The minutes of the last general and council meeting was read and confirmed.

PROPOSED REMOVAL OF THE INSTITUTE TO BIRMINGHAM.

Mr. FARNWORTH explained to the meeting the presence of Profs. Lapworth and Smith, from the Mason's College, Birmingham. He said both gentlemen were present that evening owing to the action of the Council. On the previous Friday evening it had been thought advisable that those gentlemen should attend the Council meeting and point out the advantages and benefits to be derived by a removal of the Institute to the Mason's College, Birmingham. The Institute had already, by Mr. Joseph Bailey, and the secretary, Mr. Alexander Smith, sent a letter to the college upon certain points.

Mr. ALEXANDER SMITH, C.E., then read the letter, the points in question being:—"1. Whether the 'Examination Hall' would be available for the general meetings of the Institute?—2. Could they be provided with a room for the mining museum and reference library?—3. Would the fine reference library of the college be accessible to the members and students?—4. What would be the conditions of tenure of rooms occupied by the Institute?—5. Would the trustees be inclined to make special terms with the students of the Institute as to classes, as they would have to come by rail from the surrounding districts?" He (Mr. Smith) explained that after the letter was received new trustees had to be appointed by the Town Council of Birmingham, so that no definite answer could be given to the letter. The new body had not yet had time to discuss the matter, but the two professors present had had the matter left with them to negociate.

Prof. LAPWORTH said that in a public lecture he delivered a short time ago he explained what seemed to him the advantages of gathering together the mining, mechanical, and civil engineers under the roof of Mason's College, and how this would especially affect the students of those professions. Prof. Smith and he himself desired that they should come to Mason's College, feeling certain that it would be to the advantage of both. There were at present rooms large enough for the Institute, and in a twelvemonth other buildings would fall to them which would give ample space. But they were not appointed to come to any final decision, but to negociate and find out exactly what the Institute wanted. As to the letter, he might say on point one, the Examination Hall would be available to them as to the other bodies in the college, date and hour being fixed. Upon point two, there would be room for a mining museum and for committee rooms. As to three, and access to the fine reference library, he might say that it was under the control of Dr. Hyslop. He was assured by that gentleman that it was exceedingly probable that the mining engineers might have the use of the library. As to the mining museum of the college it was under his (the speakers) control, and with the exception of some two hours daily it would be open for the Institute. The terms on which the Institute could be received would be the same as other bodies; they would simply have to pay for light, heat, and cleaning. Upon the fifth point he could not promise that any alteration could be made in the fees, because the precedent would be too wide, but the Institute might save money by coming to Birmingham, and that could be set off against the students' fees. He would suggest to them that they should study the question once more, and send another letter stating exactly what they wanted. He was perfectly sure they would be heartily welcome and well treated.

Prof. SMITH held that he was present in a double capacity. First, as a professor of the college; and, secondly, as a professor of a subject in which they were vitally interested—engineering. He had during his whole life time taken the greatest interest in practical science as affecting engineering. He knew how rapidly improvements in construction and in details of working were introduced, and also how apt a man was, unless he came out into the world of practical engineering, to fall back in the practical advance of his profession. It was only by a combination of the science of engineering together with a practical knowledge of the business, that a professor's pupil got the benefit. It taught the advantages of economical working, and they all knew the advantages of that. It would be difficult to reckon the savings of thousands and tens of thousands of pounds which had been saved simply by the knowledge derived from scientific geology. They also knew the vast sums of money which had been saved by the great improvement of machinery above and below ground, and the difference of the current expenses of now and forty years ago. And it was just in that half century that science had been developed. In the syllabus of the college was one subject—metallurgy. There were not many students as yet, owing to the plan on which the lectures were to be given. It was not until the third year of the course that the pupil engineers were divided into their separate specialities. In the first two years they would be grounded alike, but in the third year they would be divided, and take up mining, mechanical, and civil engineering. They were especially desirous of doing what they could to promote the special mining education of the youth of the district, and he might add that all the professors would be glad to develope their courses to meet the wishes of those who wanted to take Government diplomas. They might not see any special mining courses shown in the calendar, but that was because the time had not arrived; but when it did—at the end of the two years mentioned above—he should press on the trustees the necessity of a special professor of mining engineering. At the present time he held the honourable titles of civil and mechanical engineer, and he had been asked to draw up a full course. He had included electrical engineering, which seemed to be coming forward among those working underground. But he had not put himself forward as a professor to teach all the specialities. for although he had taken great interest in mining engineering, he could not teach it technically. In the third year there would be special teachers for the technical subjects. He believed the Institution would benefit by the change, and he was delighted to find that they accepted mechanical engineers. Their district was purely a mining one he knew, but if they came to Birmingham they would find engineering pursuits which had greatly increased the wealth and the consequence of the town, and those who followed them would be glad to meet engineers from that district. No doubt if the Institute came to Birmingham there would be an influx of mechanical engineers who would be able to give information on practical subjects, and would be glad to learn from the mining engineers what was wanted to still further develope the machinery of a mining district. (Both gentlemen were frequently applauded.)

Mr. FARNWORTH said that whatever was the opinion that night, the Institute must be indebted to Profs. Lapworth and Smith for the very clear and pleasant explanations they had given.

Prof. LAPWORTH, in answer to a question, said 10*l.* would cover gas, coal, and cleaning.

Mr. FARNWORTH asked as to the tenure, which was really the most important question.——Prof. LAPWORTH said they could not say anything on the subject. The best plan would be, as he suggested, to send a second letter, and put in all difficulties which they could now foresee.——Mr. JOS. BAILEY said he learned that the tenure would be the same as the other learned societies which had found homes in the college.——Prof. SMITH said the Natural History Society came and at once had such an influx of members that they had to have larger rooms, which were granted to them at once.

Mr. COOKSEY asked what were the fees?——Prof. SMITH said the engineering class fees were a fair sample of the general fees, and they were much below University College and Owen's College, Manchester. The engineering lectures cost 3*l.* 10s. for one session of three terms; drawing 4*l.*; and laboratory 5*l.* 5s.——Prof. LAPWORTH said the terms for geology were 5*l.* 5s. for three terms, or 2*l.* 2s. per term, and practical geology 1*l.* 1s. extra. There would be 30 lectures in the term.

Mr. PEACOCK held that they must have a settled tenure, because if they broke up their home in Dudley, and then were dissatisfied with Birmingham, it would damage the Institute. He begged to move a vote of thanks to the professors for coming amongst them, and explaining matters so clearly and pleasantly.——Mr. JOHN FIELD seconded the proposition. This was carried unanimously, and Profs. Lapworth and Smith acknowledged the vote, and left the meeting.

Mr. FARNWORTH invited discussion.

Mr. PEACOCK said he thought it would be very much to their advantage and benefit to the Institute to move from Dudley to Birmingham. It was an opportunity for them to secure a home in a college which had not its equal outside London. The Institute could only live by keeping abreast with the times, and there were the young men to be considered; to them the advantages were numerous and incalculable. He had much pleasure in moving—"That this meeting, having heard from Profs. Lapworth and Smith the very favourable terms upon which they believe the trustees of Mason's College are prepared to offer to this Mining Institute a home, with such advantages in their college, is of opinion the time has now arrived when it will be to the interest of this Institute to remove there, and hereby request the deputation to further confer with the trustees with a view to complete the arrangements, and that they have power to do so."

Mr. FIELD seconded the motion.——Mr. T. PARTON said the offer was one which might never occur in 100 years, and the Institute could only make itself felt by spreading out its arms as far as possible, and including as many as possible.

Mr. ARTHUR SOPWITH spoke in favour of the change, and Mr. JOHN BROWN held that the central position of Birmingham was calculated to add to the number of the Institute.——Mr. JOHN HUGHES said he failed to see so many advantages as had been spoken of. Whether the removal took place or not there were the classes in the college for their students to go to. They had heard from the professors that it would be two years before the special lectures on mining were to be delivered, and whilst they were waiting they could attend the classes in the building in which they then sat.

Mr. HENRY JOHNSON, sen., did not believe the movement would be a successful one. Still, if the Institute determined to go he for one should still continue to give it his heartiest support. The means of success were there, but he was afraid they would not be taken advantage of. There was a great deal in what Mr. Hughes had said, but it would undoubtedly be a great advantage to the students to be associated with a great college and its great scientific societies. He hoped that the tenure question would be put on a safe footing.

Mr. W. J. HAYWARD was against acting hastily, and at present he would remind them that they had nothing definite from the trustees of the college.——Mr. FIELD said the question had been debated in and out of the Institute for some years.

Mr. JOHN HUGHES moved as an amendment—"That the decision as to the final removal to Mason's College be deferred to another meeting, and the deputation be empowered to further negociate."——This was seconded by Mr. R. LATHAM.

For the amendment 12 voted and 15 against.——For the resolution 16 voted and 12 against.

The CHAIRMAN declared the resolution carried, inasmuch as 16 was a majority of members present.

MICHIPICOTEN.—The shareholders will be glad to learn that everything is progressing satisfactorily at the island. A correspondent of the Algoma Pioneer says:—Every boat brings labourers and their families who will put in the winter here in mining. The steamer Frances Smith landed a large number of passengers and 25 head of cattle on Friday last. The work at the mines just now is shaped towards making preparations for a stamping mill, and in building accommodation for the increasing number of families constantly arriving. Mr. Batters, of London, England, a director and shareholder of the company, paid a visit to the mine this week, and particularly interested himself in inspecting the accommodation for the labourers. He expresses himself as being well pleased with the prospect of the mine in every particular. During his short stay here he has become a great favourite with everybody, and he will be heartily welcomed on his promised visit next spring. Work on the Bonner Location has been discontinued until the spring, on account of a scarcity of labour, it will then open out under a strong force of miners. The agents of the company appear to be thoroughly alive to the interests of their employers, and have paid extended visits to other parts of the island, where it is reported they have also discovered some very promising veins, which have been taken up, and will receive attention as soon as the labour supply meets the demand. The whole island appears to be one vast bed of various kinds of metals, and the north shore of Lake Superior literally abounds with mineral. The saw-mill employed at the harbour in cutting timber and lumber for docks, &c., will be removed to the mine this winter. Mr. Robb, of Montreal, whose name is well known to the readers of the *Mining Journal*, has collected a large number of specimens for assay.

ROYAL CORNWALL GEOLOGICAL SOCIETY.

The proceedings at the annual meeting of members (the sixty-eighth), held last week at Penzance, afford gratifying evidence of the prosperity of the society and of the large amount of useful work which it is doing. The President—Mr. A. Pendarves Vivian, M.P.—in his opening address, very truly remarked that the society was composed not only of some of the most learned and noted votaries of science, but also, to a large extent, of those who, like himself, had other vocations in life, and could, therefore, only occasionally enjoy the wonders of geology as they crossed their path. Last year he placed before them a few brief and hurried remarks on what appeared to him, from his own observation, to have been the probable process of formation of veins of coal, especially in the South Wales Coal Basin. The subject was indeed a most interesting and almost unexhaustible one, and he might have been tempted to trouble them with some further remarks on it this year, but in the meantime it had been so scientifically and ably treated in a paper read before the Geological Section of the British Association at York, that he felt that any who cared to follow up the investigation would obtain far more information from that source than he could furnish them. He would, therefore, change the subject, and ask them to follow him in a short notice of a little trip he had made this summer to the most intering volcanic district of Mont Dore, in Auvergne, in the centre of France. He had been ordered there by his doctor for the purpose of going through a course of mineral waters, and the only redeeming point in undergoing this most disagreeable process was the lovely scenery and interesting surroundings. The whole country was intensely interesting, and there was much to fill the mind with wonder. He then related some particulars of his excursions in that part, and showed some beautiful specimens of various kinds which he brought home with him. He concluded by thanking them most sincerely for their kind patience, and making a few words about the society itself. They had to regret the loss by death of some of their oldest members—the Rev. Thomas England, F.G.S., of North Devon; Mr. James Tennant, F.G.S., of London; the late Earl of St. Germans, a life member and warm supporter of the society; Mr. Richard Greenway, of Dartmouth; and lastly, he must allude with profound respect and deep sorrow to the great loss they had sustained in the death of their old friend and neighbour, Mr. Day Perry Le Grice, M.A., of Trereife. Not only was his loss almost irreparable to many of his personal friends, but to the society itself the want of his counsel and sympathy was a matter of the gravest importance. The honorary secretary (Mr. G. Brown Millett) having submitted his report, and the treasurer (Mr. W. Bolitho) having reported that the receipts for the year were 177*l.* 11s. 5d, and the expenditure 90*l.* 16s. 2d., leaving a balance of 86*l.* 15s. 3d. in favour of the society, the Rev. Prebendary Hedgeland proposed their adoption, and the motion was seconded by Mr. Whitely, and unanimously passed.

The Occurrence of Cobalt Ore in Flintshire was noticed in an interesting paper by Dr. Clement Le Neve Foster, Government Inspector of Metalliferous Mines, which was read by Prof. Warington Smyth, M.A., F.R.S. Duridg the last few years cobalt ore had, he stated, been obtained from Foel Hiradug Mine, in the parish of Cwm, near Rhyl. The ore occurred in the carboniferous limestone, which seemed to have furnished a good deal of iron ore from shallow pockets, if he might judge by the numerous pits scattered about near the mine. It was in working one of these pockets that Mr. Gage made the discovery of a vein of cobalt ore, which has now been worked continuously on a small scale for several years. On the whole, the vein was extremely irregular, and its width varied from a mere knife edge to 8 or 10 ft., and it widens out and becomes pinched up very suddenly. The ordinary width did not exceed 1 ft. The walls were extremely irregular, and the cavity coutaining the ore had all the appearance of having been eaten out by water. Dr. Foster went into minute particulars regarding the discovery, quality, and quantity of cobalt sold, and in conclusion, as an incentive to the study of blowpipe analysis, he wished to place on record that Foel Hiradug Mine, the only cobalt mine now at work in the British Isles, owed its existence entirely to Mr. Gage's knowledge of the useful art.

A Description of the Besshi Copper Mine, in Japan, was given in a paper read by Mr. J. H. Frecheville, Government Inspector of Metalliferous Mines, in which he said that in 1875 he was instructed by the Japanese Government, in whose service he at that time was as a mining and metallurgical engineer, to examine and report on the mineral resources of the Island of Shikoba. The Besshi Copper Mine was situated in the north-western part of the island, some 10 miles to the south of the Port of Nihama. The formation of the district in which the Besshi vein occurred consisted of altered clay-slates, such as horneblende and mica schists, alternating with beds of quartzite, the whole intersected with large masses of greenstone and serpentine. The mine has been in constant operation for nearly 200 years, so that the extent of the workings was considerable. The deepest points attained by the workings was about 120 fathoms perpendicular below the level of the deep adit, the water being lifted to that height solely by hand-pumps, of which there were 150. The length that the vein was developed in the direction of its course was about 400 fathoms, the ore varying much in quality, but no unproductive ground had been encountered within that distance.

The Duchy of Peru Lode, at Perranzabuloe, formed the subject of the next paper, by Prof. Warington Smyth, who said that in 1858 he ventured to bring before the society a brief account of the remarkable lode which extends from the northern extremity of Perran Sands to the north of Newlyn Downs. Before that date he thought but little attention had been drawn to a lode so powerful and so exceptional in its character. Dr. Borlase, exactly 100 years before, probably referred to this vein when stating that not one iron mine had as yet in Cornwall been worked to effect. He (Dr. Borlase) added in a note that iron was found in the parishes of Morval, Perran-Sands, &c. The effect of the occurrence of iron at the cliff extremity was indicated by De la Beche in his geological map before 1839, by the sign for Mars, and the unusual line of bearing of the lode was briefly referred to by Mr. Henwood, in his well-known description of the St. Agnes and Perranzabuloe district. Since the date of his (Mr. Smyth's) last paper, about which time he had the pleasure of introducing more than one well-known ironmaster, the district divided as it is between several lords, has been taken up by a number of successive parties of adventurers. A large amount of work had been done, with a success, perhaps, commensurate with the judgment which has been brought into play. And the results which have been obtained by active working in that portion long called Duchy Peru Mine were so curious and instructive that he proposed to describe some of them, which were notable examples of lode structure, and which indicated the danger of neglecting to learn to appreciate the vagaries of this class of mineral repository. After giving the examples he referred to, he said one remarkable product of the Perran lode was the zinc-blende, which, after being first discovered in Great Retallack, and yielding sometimes thousands of tons in a year, had of late made its appearance in astonishing masses at the Duchy Mine to the extent of supplying as much as 900 tons per month for some time past. At a number of isolated points along several mines of this lode metalliferous treasures of various kinds had been laid open, but an important question at once suggested itself—what was the nature of the lode between those points, and what clue had they in the driving of the present mines as to the value of the intervening ground? He feared that much of the disappointment that had attended these as well as other workings arose from ignorance of the true nature of the lode. Every Cornishman must know more or less the unstable or "bunchy" character of most of those deposits, but the descriptions, calculations, and diagrams of outsiders who have touched on these questions betrayed a subtle disregard as to the real state of the case. Those misleading convictio[n]s

generally betrayed that belief in the uniformity of lodes throughout a long run was readily shaken by a close acquaintance with them. The completion of a good railway from Newquay to these mines has obviated one of the difficulties in mining the district, and the discovery of the blende in quantity has given a fillip to it which it is hoped may conduce to further successful exploration.

The Evidence of Glacial Action in Cornwall and Devon was again referred to in a paper by Mr. Nicholas Whitley, C.E., who stated that in two papers previously read by him before the society he described what appeared to him to be conclusive evidence of the existence of glacial deposits, and of ice-action in the south-west of England. So far back as 1854 he described in their annual report the so-called "raised beaches" at the estuary of the Taw, and inferred that these ancient gravel beds were the remaining portions of the northern drift, which formerly extended much further seaward, and choked up the mouths of the rivers and filled the bays around our coast line. In the Transactions of the society for 1875 he described the geology of the shores of Penzance Bay, and came to the conclusion that the extensive bed of sand and pebbles and boulders at Wheal Darlington, inside the green, corresponded in every respect with the "raised beaches," exposed in the cliff sections, and that these beds are some of the geological elements which constituted the drift of the "Glacial Age." For a period of 25 years he had examined and made sections of most of these patches of gravel over the whole of the coast line of the South of England. To this end he had also explored the islands of Scilly and Lundy, the north coast of Cornwall and Devon, and the coast of South Wales as far as Caldy Island. During the past summer he had been able to extend his researches to the estuary of Tivy on the west coast of Wales, and the country around Cardigan. He had thus been enabled to trace up these patches of drift of gravel to where they were more fully developed, and recognised as true deposits of the glacial age, and he found throughout the whole series a uniformity of material of geological position and structure. Thus, if the links in this chain of evidence were without flaw, then the geological age of this so-called raised beaches is established, and probably that also of the stream tin deposits.

The Ventilation and Illumination of Mines were next discussed, on a paper being read by Capt. W. Teague, jun., who, after a brief reference to past operations in Cornish mines, said that with the introduction of boring machinery, and the consequent use of strong explosives, it was necessary that they should invent some means by which the ends or levels in which boring machines and such explosives were used could be ventilated or cleared of the noxious vapours which filled the levels after blasting. He had patented an invention for this purpose which he hoped and believed would answer. With regard to the advantage of gas or the electric light in mines, Professor Warington Smyth, in reply to a question from Mr. William Bolitho, junior, said that he fancied it was very largely a question of cost, and that in most of our mines gas would be an expensive means of lighting, although where there was no fire-damp present it undoubtedly played an important part in many of our collieries. But as regards the electric light, we were quite at the beginning, he thought, of any application of it underground, and he was afraid it would prove to be a very dangerous thing to experiment upon at any cost where there was fire-damp. Mr. Leonard Courtney, M.P., was then unanimously elected president of the society for the next two years. Mr. W. Bolitho and Sir John St. Aubyn, M.P., were elected trustees in the places of Mr. Le Grice and Lord Falmouth respectively, and Mr. A. P. Vivian's name was also added. Mr. W. Bolitho, jun., was re-elected treasurer; Mr. C. C. Ross, M.P., librarian; Mr. Millett, hon. sec.; and Mr. Taylor, curator. Messrs. T. Cornish, A. L. Fox, T. R. Polwhele, and J. C. Ross were elected members of the council of the society; the proceedings of a highly successful meeting being thus brought to a close.

Meetings of Public Companies.

RIO TINTO COMPANY

An extraordinary general meeting of shareholders was held at the Cannon-street Hotel, on Friday, Nov. 4,

Mr. H. M. MATHESON (the Chairman of the board) in the chair.

The SECRETARY read the notice convening the meeting, and the minutes of the last general meeting.

The CHAIRMAN said:—We have taken the liberty to ask your presence here to-day, in order to submit for your approval an operation of a highly favourable character for the company, which we find ourselves in a position to recommend to you. I may, however, before proceeding to the special business of the meeting take advantage of this opportunity to inform you, although with great brevity, how the company's business is going on. I am glad to say that all the work at the mines is progressing well. The quantity of mineral put out during the ten months of this year now completed amounts to 790,000 tons, and we have no doubt we shall reach at Dec. 31 an output of a million tons, or within a small fraction of it. Great progress has been made in works of development, chiefly in opening up the Dionisio and the north lodes, and we are glad to be able to say that both as regards the quality and the quantity of the ore in these deposits our expectations have been realised so far as the explorations have proceeded. Our sales of sulphur have been made in advance for the next three years on a large scale, at prices which leave the company a good remunerative profit. Our copper production is pushed on vigorously, with the constant view to progressive results, and I may add that we shall come up to the increased quantity for the present year which we led you to expect at the last ordinary general meeting. By way of information it may also be mentioned that the ore which we have lying spread out and in heaps on the ground at Rio Tinto, which will yield its copper gradually, contains not less than 20,000 tons of metallic copper. This stock may be considered as a handsome reserve fund, particularly as the chief outlay for bringing it into marketable metal has already been defrayed and accounted for. With these principal data before us, and in view of the credit which the company now enjoys, your directors were of opinion that its position could be still further improved by means of the financial operation for the sanction of which we have called you together. It is proposed, as you are aware, to pay off the old 5 per cent. bonds, and to create additional share capital in their stead. A few figures will show you what are the advantages which we think will be derived from the proposed conversion. The 5 per cent. (Spanish coupon) bonds require an annual payment, or annuity, of 174,000*l.*, while the charges on loans obtained for floating and working capital require about 25,000*l.* annually. As you will have observed from our statements of accounts for last year, we had to reserve a sum of 45,000*l.* towards cost of machinery and plant, and there is no doubt we should have had to make a similar reserve for this year, only larger, for the same purpose, in the absence of a special fund for working capital. This added to the annuity on the bonds and the charges on floating and other debt just spoken of, could not have been less than 250,000*l.* per annum. This is the amount with which we have to deal in the proposed conversion, and I will endeavour to show you at a glance the effect of its extinction. In the remarks I am now going to make I am not referring to the entire results, but only to the figures concerned in this operation. Let us suppose, as a matter of pure hypothesis, that the regular dividend to be paid upon the original share capital would have been 10 per cent. per annum, or 1*l.* per share. It will be understood that I take 10 per cent. as a convenient figure. This upon 225,000 shares=225,000*l.*; but let us add the amount to be dealt with by the present operation just stated 250,000*l.* If we can extinguish the bonds and debt to which this 250,000*l.* is applicable, we shall consequently have a gross sum of 475,000*l.* to apply in payment by way of dividend upon the old shares, and upon the new shares which will take the place of the old debt. These shares together will be 325,000 in number, upon which the sum named will give a dividend of nearly 15 per cent. or 30s. per share, so that the gain to the old shares will be an additional 5 per cent. or 10s. per share per annum. This is precisely the effect of the operation, and it is obvious that the value of your shares will be proportionately higher with 15 per cent. dividend than it would be with 10 per cent. Or, to put it in another way, leaving matters as they are without the conversion, and assuming that the results of the company's operations will be the same as they are now, you would receive dividends of 10 per cent. or 20s. per share for a period of 14 years, when the annuity terminates, and would then come into the receipt of, at the very most 20 per cent., or 40s. per share. By the proposed operation you will come at once into the receipt of 15 per cent., or 30s. per share. In naming 15 per cent. you will carefully remember that I am only assuming that the profits of the company will be the same as they are at present. This explanation being given, and I trust it has been made clear, I may now add that through the proposed issue of the additional shares, not only the entire outstanding bonds of the first issue, called Spanish coupon bonds, but all the floating debt also will be covered, and a considerable sum obtained besides for working capital, thus relieving the company entirely from its dependence upon others, which is the more desirable in consequence of the necessary extension of the company's works. The only charge upon the revenue of the company which will then remain will be the annuity of 155,000*l.*, upon the 5 per cent. bonds of 1880, which will become first mortgage instead of only second as at present. This charge it will be interesting for you to know amounts to no more than 3s. per ton upon the ore which the company is at present extracting from its property year by year, and will be extinguished in due course by the operation of the sinking fund. On one other point a word of explanation may be expected. It will not be possible for us, consistently with securing for you the utmost benefit of this important operation, to offer to you *pro rata* a preferential participation in the issue of these new shares. The capital of the outstanding bonds to be paid off is still a large one, over 1,700,000*l.*, which will have to be met on a fixed date, and it is plain that the directors could not be left to depend for its provision upon the exercise of an option on the part of the shareholders. Moreover, the registered shares of the company do not now exceed in amount one-seventh of the whole. We have the fullest confidence that you will appreciate the force of these observations, and that you will empower us so to deal with the shares as to obtain the best results for the company at large, and that each one of you may receive his proportion of the profits of the operation. I conclude these remarks by moving the following special resolution:—"That, in accordance with the recommendation of the board of directors, the capital of the company be increased by the issue of 100,000 shares of 10*l.* each."——Mr. A. G. DALLAS (Deputy-Chairman): I beg to second the motion.

The CHAIRMAN: Of course, I am ready to answer any question which shareholders may desire to ask upon any of the points to which I have referred, and which I may not have made sufficiently clear in my statement.

The CHAIRMAN, after a pause, put the resolution to the meeting, and it was carried unanimously.——The CHAIRMAN then proposed—"That in the event of the foregoing resolution being confirmed as a special resolution, the board of directors be and they are hereby authorised and empowered to issue and dispose of the 100,000 newly created shares to such person or persons, whether shareholders or not shareholders of the company, at such time or times, at such premium, upon such terms (and if deemed expedient, with a right to participate in the final dividend for the year 1881) and in such manner as the board may think fit."——This was also seconded by the DEPUTY-CHAIRMAN, and carried unanimously.

The CHAIRMAN: It will be necessary to have a meeting to confirm the special resolution, and that meeting will be held this day fortnight, that is, on Friday, Nov. 18, at the offices of the company, Copthall Buildings. The official notice will be sent out as usual.

A vote of thanks to the chair, proposed by R. P. OLDERSHAW, and acknowledged by the Chairman, terminated the proceedings.

BRITISH DIAMOND MINING COMPANY.

The quarterly meeting of shareholders was held at the company's offices, Church-street, Kimberley, on Oct. 10,

Mr. ANTON J. PETERSEN in the chair.

Mr. GEO. C. LISSAU (the secretary) read the notice convening the meeting, and the report of the directors and statements of accounts were submitted:—

The report and profit and loss account for the past quarter may be considered very satisfactory, particularly if it is borne in mind that the good result has been obtained in spite of many drawbacks, such as repeated stoppages in the claims, high wages for labour, and extra expenses for night-work. The amount of work done, though more than during the preceding quarter, still falls short of what the company can do under favourable circumstances. In August a fair amount of blue [that is, diamondiferous soil] has been hauled; but in July little hauling work could be done the first half of the month, work being almost entirely stopped in consequence of the slow progress of the reef contractors' steam navvy, and during the second half of September reef had to be cut down and hauled; it was, therefore, impossible to increase the stock of blue on the floor. Altogether 9703 loads blue have been hauled in 41 days and seven nights, and 4530 loads of reef.

In July and August but little work could be done on the washing-floor; in July the blue was not yet fully prepared, and in the latter half of August the new washing gear had to be erected. Work with the latter was begun on Sept. 7, and the results showed that the new gear is quite sufficient for the wants of the company. On July 1, 4494 loads blue were on the floor; this, with the 9703 loads hauled, gives a total of 14,197 loads, out of which 9947 loads have been washed in 51 days, leaving them at the end of the quarter with 4250 loads: 2000 loads of lumps [that is, lumps that remain after washing the blue, and which have to be crushed and rewashed] were on the floor on July 1, and 1500 loads of these have been washed in nine days; on Sept. 30, 900 lumps were still on the floor. The yield of this work amounts to 17,558 carats, sold for gross 29,678*l.* 16s. 3d. Out of this 902 carats or about 1075*l.* worth were obtained from the lumps, leaving 28,603*l.* for 9947 loads blue, or an average of 57s. 6d. per load. For the 4530 loads reef hauled mining board bills amounting to 566*l.* 6s. 3d. have been received.

The profit and loss account shows a net profit of 18,089*l.* 10s., and after deduction of 5 per cent., or 904*l.* 9s. 6d. for the reserve fund, which is thus increased to 2468*l.* 17s., there is 17,185*l.* 0s. 6d. available for distribution; of this amount the directors recommend to set aside 15,945*l.* for the payment of a dividend of 15 per cent. for the quarter (being at the rate of 60 per cent. per annum), leaving a balance of 1240*l.* 0s. 6d. to be carried forward. The expenses have been high, as a great deal had to be spent for labour, and the taxes alone amount to 2154*l.* The 2700*l.* fresh scrip mentioned in the last report has not yet been issued, and the money spent on new machinery account has been drawn from the general fund, to which it will have to be refunded as soon as the issue of the new scrip has been effected. Work on the washing-floor is brisky continued, and since Oct. 1 about 4000*l.* worth of diamonds have been obtained.

SIMONS' REEF AND CARTA PARA MINING COMPANIES.

A meeting of shareholders in these companies was held at the City Terminus Hotel, Cannon-street, on Thursday,

Mr. E. BEALL in the chair.

Prior to the opening of the meeting Mr. Wanwright and another gentleman, who were said to be the holders of vendors' shares, were removed from the room.

The CHAIRMAN said that since the meetings of the companies, held on Oct. 31, he had had the opportunity of further ascertaining the conduct of some of those persons who formed the meetings, and he thought he might congratulate those who were now present that only *bona fide* shareholders were there, and not the holders of shares of the vendors or promoters. It was his clients' desire to do all that they could in the general interests of the general body of *bona fide* shareholders, but not in the interests of the vendors and promoters. At the meeting, on Oct. 31, at which so much unanimity prevailed, there were present only six shareholders who had applied for shares owing to the advertisements or prospectuses. On the list furnished him by the officers of the company, and which was verified by the secretary as being a true record of the names of the persons who attended that meeting, there appeared the names of two gentlemen personally known to him, one of them being a client. He (the Chairman) did not see those gentlemen at the meeting, and, therefore, he wrote to them, and asked if they attended the meeting, and the answer he received was that neither of the gentlemen were there. The secretary of the company, in his affidavit, had stated that these gentlemen were present. (Laughter.) That reduced the number of *bona fide* shareholders who attended the Simon's Reef meeting to four.

A SHAREHOLDER: Can you give the names of the gentlemen who were said to be present, but were not?——The CHAIRMAN: Mr. Holman Hunt and Mr. James White, late M.P. for Brighton.

Mr. BERMAN: Does not he say that they supported the directors in their resolutions?——The CHAIRMAN: I believe so. The other *bona fide* shareholders present were Mr. Bayliss, Mr. Whiffen, and Mr. Croney, and, perhaps, Mr. Robinson, but of that he was not sure. The number of holders of vendors' shares were very predominant, and the person who proposed his (the Chairman's) expulsion—though he represented Mr. B. French, a large share and bond holder—was a Mr. Walker, who was not a shareholder at all, and whose name was not even on the list furnished to him by the officials of the company. The other prominent persons at the meeting were Mr. Urwick, who was not on the list, and Mr. Wanwright, jun., who was a holder of vendors' shares. To further practice the deception, the resolution proposed by this Mr. Walker, was actually in the handwriting of one of the officials of the company, and was drawn up at the company's offices, and on the back of it were these words:—"You must propose this resolution. Make yourself well acquaited with it. Say you drew it up." (Laughter.) That resolution was handed to Mr. Walker to propose, but it would be waste of time to discuss further the propriety or the conduct of the persons who took part in that meeting. (Hear, hear.) He would only add that the same Mr. Walker took a prominent part at the meetings of the Carta Para and Haven companies, in neither of which was he a shareholder.

Mr. BAYLISS remarked that he attended the Simons' Reef meeting on behalf of his father, but he did not vote upon any resolution.

The CHAIRMAN then referred to the prospectus of the Simons' Reef Company, and stated that the 35,000 shares which were said to have been applied for before the prospectus was issued were from applicants who were totally irresponsible persons, and the form of application which they signed was different to that signed by the *bona fide* shareholders, and mentioned nothing about any payment, nor was any payment made upon the 35,000 shares till the month of August, and then only by cross-book entries out of the purchase-money. With regard to the guaranteed interest for two years there was not a shilling invested to meet the guarantees, and the balance at the bankers was only about 500*l.* The payment of the first coupon was due on Jan. 26, but he did not believe it would be paid. Only 850 10*l.* debentures had been applied for, whilst the number of shares applied for by *bona fide* persons was only 3586, and yet the directors went to allotment and agreed to pay the vendors 150,000*l.* in cash and shares. The Simons' Reef Company was indebted to the Carta Para Company in the sum of 2000*l.*, which they borrowed for the purpose of completing the purchase of the Simons' Reef property.

Mr. BERMAN: I suppose that is the valuable asset the Chairman spoke of at the meeting?——The CHAIRMAN: Yes; they had, he believed, a charge upon 330 acres of the property known as the Carta Para property, but that was the only asset they had. The property cost 15,000*l.*—5000*l.* in cash, 5000*l.* in debentures, and 5000*l.* in fully paid shares; but at the time the prospectus was issued the nominal vendors had no legal title to the property, and the title deeds were only obtained from the original vendors after the allotment of shares and debentures, and then upon payment to them out of the funds provided by the Simons' Reef shareholders. The directors treated direct with the original vendors, Messrs. Mitchell and Co., and yet at the same time they held a conference with the vendors and promoters of the property as to how they should divide 135,000*l.* of actual profit. The vendors had transferred some of their shares to 126 nominees, and as there were only 62 *bona fide* shareholders the vendors and their nominees could overrule anything that might be brought forward. The majority of the shareholders refused to pay up the amount called on their shares, and he believed that as the coupon would not be met the debenture holders would foreclose under their mortgage deed. The same thing would apply to the Carta Para Company. Three of the original directors had resigned, Gen. Anderson had gone to India, and neither Mr. Kitson (the Chairman), Mr. Hodgson, nor Mr. Laurie, held a single share in the company, though they were entitled to draw 2000*l.* per annum for directing it, and Mr. Kitson had made the very pleasant arrangement that besides the remuneration to be paid to him as a director the two companies should jointly pay him 700*l.*

Mr. WHIFFIN also referred to the meeting held on Oct. 31, and moved the appointment of a committee of independent shareholders of the Simons' Reef Company, who should apply to the directors for leave to examine the books of the company and report to the shareholders on the exact position of the company. If the directors refused to allow the committee to inspect the books he believed the Courts would soon compel them to give the information required.

Mr. MOORE seconded the motion, which was carried unanimously, and Messrs. Whiffin, Moore, and Griffin were subsequently appointed to form this committee. Mr. Moore, however, said that he would not be able to serve upon it.

The CHAIRMAN said there were only nine *bona fide* shareholders in the Simons' Reef Company residing in London, and added that the directors of the company were, according to the Articles of Association, to remain in office till 1884. He then referred to the meeting of the Carta Para Company, and defended the course taken by Mr. Horncastle on the ground that this claim was a just one, the list of advertisements submitted by him having been approved by the directors; and that as the shareholders refused to pay up the amount called upon their shares, it was useless for him to take an action to recover the amount of his claim. Mr. Horncastle, however, was a large shareholder, and was desirous of doing anything that could be done to save the money of the *bona fide* shareholders.

Mr. SMITHIES stated that at the meeting of the Simons' Reef Company the Chairman of the company stated that a shilling per share had been paid to brokers as commission; but he had only received 6d. per share, and other brokers that he knew had received a like commission. The Chairman wrote, in reply to a letter on the subject, that he was assured the amount—one shilling per share on 12,000 shares—had been paid.

Mr. BERMAN said his broker and other brokers that he knew received 6d. per share commission only.

Mr. SMITHIES remarked that the amount was ample, but that it should not have been made to appear that the brokers had received twice the amount which they had actually received.

The CHAIRMAN said that a large number of the applications for Carta Para shareholders were from totally irresponsible persons, who had signed applications in blank.

Mr. BERMAN said he believed the Carta Para shareholders would get their money back, or a good deal of it, if they stuck together.

A vote of thanks was passed to Mr. Beall, and the meeting then closed.

UNITED MEXICAN MINING COMPANY.

The general meeting of shareholders was held at the company's offices, Great Winchester-street Buildings, on Wednesday,

Mr. CHARLES MORRIS in the chair.

Mr. W. M. BROWNE (the secretary) read the notice convening the meeting.

The report issued to the proprietors (extracts from which were published in our Journal of last week) was taken as read, and the CHAIRMAN in moving the adoption of the report said he regretted not having a more favourable one to put before them, and after briefly referring to the same and stating that further advices were received on the 8th instant (which appear in another column) of a more favourable nature, and expressed his belief that the company's prospects were decidedly encouraging. Mr. Furber being present, the Chairman felt sure he would most willingly give every information the shareholders might desire.

Mr. FURBER, at the request of the proprietors, entered into an explanation of the different works which were being carried on, and pointed out that though the gross expenditure on the San Cayetano concern had been 821,509 in the six months all had not been dead work, $8450 having come in from ore sold. He stated that though the works on the north-west side had fallen off he saw no reason for the proprietors being discouraged, because the gallery and cross-cut of San Juan—the most important works in the mine—were reported on Oct. 6 to have improved.

Mr. C. DOANE asked if Mr. Furber agreed with what Mr. Glennie had stated in his report?——Mr. FURBER replied that he certainly was of the same opinion as that expressed by Mr. Glennie. Mr. Glennie was a thoroughly independent, efficient, and honourable man, and that he had been selected by the commissioner without any mention of his name from this side. Though Mr. Glennie did not and could not say anything very favourable regarding the state of the backwork in the adit, Mr. Furber considered that his report was certainly not unpromising as regarded the future, and that at all events he clearly said that if the company should give up the concern others would at once take it up. Such being the case the present shareholders could hardly think it advisable to allow other parties to acquire the advantages which they had gained for drainage and economical work.

Mr. JOSEPH DOANE then enquired if the directors had given instructions for Mr. Glennie's plan as to pushing forward the works to be acted upon.——Mr. FURBER replied that though the works were going on as yet no specific instructions had been given, but that he should recommend the board to write by an early mail, in order that no time should be lost in advancing the gallery and cross-cut of San Juan.

The CHAIRMAN said that Mr. Furber's recommendation on this head, and anything else that he might suggest, would be carried out by the directors.

A SHAREHOLDER enquired wether it would not be better to get rid of the property at once than to run the risk of its being of less value when it was further developed.——Mr. FURBER replied that he did not consider the present an opportune moment for selling mining property in Guanaxuato. Affairs there were stagnant, and capital was not over abundant. The Mexican Central Railway, from Mexico to the interior, is now open about 60 miles, and in 18 months or two years' time, at the outside, it may be expected that Guanaxuato will be in direct communication with the capital and the outer world, and that then an influx of American and foreign capital might be looked for, and a mining concern might, probably, be sold on better terms than under present circumstances.

The report and accounts were then unanimously adopted.

The CHAIRMAN proposed that Mr. Lewis Henry Perry be elected a director, which was seconded by Mr. GEORGE HARRIS, and carried.

Mr. PERRY having returned thanks for his election, the meeting was then constituted extraordinary.

The CHAIRMAN moved—"That a call of 2s. 6d. per share be, and the same is, hereby made on the shareholders of the company, the same to be payable on June 1 next."——Mr. C. FLOWER seconded the motion, which was carried.

On the motion of Mr. GOLDSMID, seconded by Mr. NICOL, a vote of thanks was passed to the Chairman and directors, and the meeting then closed.

MINAS AND RIO RAILWAY COMPANY.

An extraordinary general meeting of shareholders was held at the New Exchange Buildings, Lombard-street, on Thursday (the Right Hon. H. C. RAIKES in the chair) for the purpose of considering and approving the following resolution:—

That the board of directors be, and they are, hereby authorised to create and issue mortgage bonds or debentures of the company for a sum not exceeding the amount mentioned in the 11th of the Articles of Association. That such bonds or debentures be of such amounts respectively, and consist of one or more issues ranking *pari passu* or otherwise, bear interest respectively at such rate not exceeding 7 per cent. per annum, be issued at such time or times, at such rate or rates, be redeemable at such time or times, and for such price or prices, be in such form, and be secured by such charge on the undertaking, revenues, and property of the company, and by means of a deed of mortgage and trust to trustees or otherwise, as the board shall from time to time determine; and that in all matters relating to such bonds or debentures, and the issue thereof, and security for the same, the board shall have power and authority to act on behalf of the company as they deem expedient, as fully and effectually as if the same were hereby expressly authorised.

Mr. R. C. PRESTON (the secretary) read the notice convening the meeting.

The CHAIRMAN said that before moving the resolution he would advert for a moment to the engineer's report, which had been circulated. He thought the shareholders would have been very glad to have received that report, both on account of the very important evidence it afforded of the rapidity with which the work was being pushed on, and also for its significance as bearing upon the resolution which he had to propose. They would observe in that report, amongst other encouraging statements, "At the tunnel under the peak of the Sierra, the summit of the railway and the key of the works, the shafts and the cuttings at each end of it have been completed, and the tunnel is already being driven at a monthly rate, which would ensure its completion in 27 months, or much earlier than expected, and the present rate of speed will be considerably accelerated when the drilling machinery is in full operation." They had also seen the statement contained in that report of Mr. Brunlees with regard to the progress made generally with the work. There was a further statement which was of importance with regard to the meeting here to-day, and it was the paragraph which stated: "The Government Engineer Fiscal, M. Francisco Periera Miranda Azevedo, charged with the supervision of the enterprise, in his report of the state of the works addressed to the Minister of Public Works, under date July 13, says—"The works of this undertaking are proceeding with all regularity. Fifteen hundred workmen and a numerous technical staff are employed. I hope in the next report to present figures yet more eloquent of the activity of the works, although there is nothing but satisfaction to be felt at the impulse given to the different services during the last six months.'" Mr. Brunlees had been good enough to supplement the statement in his report by one or two small matters of detail, which would give vividly an idea of the progress of the works. On the first section 21 miles had been permanently set out, and the line cleared; on the second section 62 miles had been surveyed and set out, the shafts and the cuttings at each end of the tunnel were completed, and the tunnel itself is already being driven at a rate which would ensure completion in 27 months; the material was hard rock. All the machinery for driving the tunnel had arrived out. Eight miles of line had been completed ready for laying; 41 miles of permanent material had arrived, and also two locomotives and 42 ballast wagons, and the contractor's plant and machinery had been provided. It was under these circumstances that the directors asked the shareholders to authorise them to proceed, under the power given them in the articles, in making an issue of debentures. About a month or two ago power was obtained from the Imperial Government of Brazil to make an issue of 550,000*l.* of capital. He believed that some misapprehension had arisen in consequence of the way in which this was announced, without the knowledge of the board, for the word "additional" seemed to have appeared in that announcement, and some of the shareholders and public might think that the capital originally contemplated had been found to be insufficient for the purpose, and it was found necessary to go for further capital. But that was beside the fact. What the directors were asking now was merely to issue the capital which would bring up the subscribed amount to 1,000,000*l.*, and the whole capital authorised had been 1,816,875*l.* Therefore there would be some further issues. The original capital contemplated seemed to be entirely sufficient for the purposes, as far as the directors could see. Perhaps they would not have come so soon to ask the shareholders to sanction the proposed issue, but the great speed with which the works had proceeded had employed the capital at their disposal under their first issue. The Brazilian Government did not wish to pay the guarantee interest upon a larger sum of money than was absolutely required for the works, and they would have shrunk from authorising the further issue of capital unless they were satisfied that the sum already received had been expended to their satisfaction. The board had been led to propose, on the present occasion, the issue of debentures by more than one important considera

tion. It would be clear to everybody that the interests of the company were best served by the issue of debentures than by fresh shares, if preparation was made that a sinking fund should accompany the creation of the debentures, so as to provide for repayment of the amount so raised about the time the guarantee of the Government ceases; therefore at about the time that the Imperial guarantee expired they might look forward to having the debentures extinguished. The directors had had another consideration present to their minds, and that was that under contract made, in the first instance, the contractors were entitled, if they thought proper, to claim them to any shares, or premium upon any shares, which might be issued in the same way; whilst if the company had been less successful, and if the shares had been difficult to place, the contractors would be bound to accept shares in lieu of any further payment. Therefore it was in the interests of the shareholders that the new issue should be in debentures. The directors would be happy to give all the favourable consideration in their power to any applications for debentures made by shareholders. It would be premature to indicate the exact terms of issue, but it might be supposed that the directors would be glad to have amongst the debenture-holders those who had shown confidence in the company by taking shares. In conclusion, the Chairman moved the resolution given above.——Sir H. DRUMMOND WOLFF, M.P., seconded the motion.

The CHAIRMAN, in reply to a question, said that the directors did not propose at present to issue more than 400,000*l.* in debentures.

Mr. CHILLINGWORTH asked whether the directors would issue any shares?——The CHAIRMAN said the contractor had given notice that he would exercise the power he possessed with regard to claiming the shares, so there would be none for the shareholders.

A SHAREHOLDER asked what would be the probable rate of issue of the debentures?——The CHAIRMAN: Our object will be to get the debentures placed at as low a rate as possible. I do not suppose that the interest would be above 6 per cent., and if we can get them taken up at a lower rate we shall do so.

The CHAIRMAN, in reply to a question, said there would be the same Government guarantee on the debentures as on the shares.

The resolution was then put to the meeting, and carried unanimously.

The CHAIRMAN announced that the confirmatory meeting will be held at the company's offices on Tuesday, Nov. 29, at a quarter to five o'clock.

The meeting then broke up.

PELYN WOOD COPPER MINE.

The first meeting of adventurers was held at the offices of the company, Great Winchester-street, on Monday, to receive the accounts, to elect a committee, to appoint bankers to the company, to make a call, and to transact the ordinary business of the company.

The chair was occupied by Mr. CHRISTOPHER ROBINS.

Mr. W. BATTYE (the secretary) read the notice calling the meeting, and also the two following reports, one from Mr. Charles Thomas, dated Sept. 9, and the other from Mr. Thos. H. Bennett, dated Nov. 7:

The SECRETARY read a statement of receipts and expenditure, which showed that the call of 6d. per share made at the last meeting had been all paid, and had produced 300*l.* The first cost-sheet of July 30 amounted to 26*l.* 18s., the second cost-sheet for August 32*l.* 1s. 7d., there had been paid 200*l.* for the tack-note on responsibility incurred before the company was formed, the cost-sheet for September amounted to 42*l.* 11s., and the cost-sheet on Oct. 22, 35*l.* 16s. 5d.—leaving a balance of 49*l.* 9s. 10d. due to the secretary.

The CHAIRMAN said he supposed they would go on driving the level from the time being, and he asked what the probable future monthly expenses would be?

Mr. BENNETT said that if the drivage were prosecuted as it should be the monthly expenses would be from 40*l.* to 45*l.* During the last four months they had driven 11 fms., and, of course, the more they drove the more the cost would be in proportion.

Mr. W. GUNDRY: What is the price of the ground?——Mr. BENNETT said 2*l.* 7s. 6d. There was no timber required as the ground stood alone. (Hear, hear.)

A SHAREHOLDER said this was a very favourable feature.

The CHAIRMAN: How much money will you want for the next three, four, or five months?——Mr. BENNETT said they could get on very well with 44*l.* or 45*l.* per month.——Mr. W. GUNDRY: In that case a 6d. call would be sufficient to carry us on for the next four months.

Mr. BENNETT said it would be amply sufficient. He mentioned that he had costeaned one of the lodes, but he had not been able to costean the other two lodes, as he had not been able to obtain leave to go on the surface, and his knowledge of those two lodes were based upon plans which had been placed at his service.

On the motion of Mr. WM. GUNDRY, seconded by Mr. SEWARD, the accounts were received and adopted, and ordered to be entered on the minutes.

On the motion of Mr. WM. GUNDRY, seconded by Mr. ALLAN, the following gentlemen were elected the committee—Messrs. Thomas Bremner, C. Robins, Gabbott, Miray, and Clunes.

On the motion of Mr. SEWARD, seconded by Mr. CLUNES, it was agreed that a banking account should be opened at the Fowey branch of the Commercial Bank of Cornwall.

The SECRETARY said the next question was with regard to a call. He had consulted some of the largest shareholders, and they considered that a call of 6d. per share would be sufficient to meet all the requirements till the next four-monthly meeting.

Mr. ALLAN proposed that a call of 6d. per share be made, payable at the Fowey branch of the Commercial Bank.——Mr. BREMNER seconded the motion, and said he was agreeably surprised at the smallness of the call.

Mr. W. Battye was then appointed secretary, at a salary of 4*l.* 4s. per month, Mr. Clumes, purser, at 1*l.* 11s. 6d. per month; and Mr. T. H. Bennett, agent, at 4*l.* 4s. per month.

Capt. BENNETT, the agent of the mine, in reply to questions from shareholders, stated that in his experience of twenty-five years of mining, during which he had opportunities of examining many of the great copper mines of the two western counties, including the Devon Great Consols and the South and West Caradons, he had seen nothing that, in his opinion, held out better prospects of having a prosperous mine. At the adit level, where the drivage is on the caunter lode, carrying a leader of grey copper ore, rich for silver, similar to those samples before before them on the table, and this lode is entering a hill rising from 30 to 40 fathoms in the direction of the east and west lodes referred to by Capt. C. Thomas and Capt. J. Nicholls, who inspected the mine. This counterlode is altogether from 3 ft. to 4 ft. wide, a large portion of which is of the finest quality gossan. It is not only the agents' opinion who have inspected the mine, but the miners of the district who have worked in the adjoining mines are of opinion that at these intersections of the east and west lodes similar results will be found as in the celebrated Lanescot, Fowey Consols, and Pembroke Mines.——A vote of thanks to the Chairman terminated the proceedings.

WHEAL CREBOR MINE.

The ordinary general meeting of shareholders was held at the offices of the company, Gracechurch Buildings, on Thursday,

Mr. J. Y. WATSON, F.G.S., in the chair.

Mr. C. B. PARRY (the secretary) read the notice convening the meeting and the minutes of the preceding meeting, which were confirmed. The accounts were taken as read.

The CHAIRMAN said: Gentlemen, since our meeting on July 5 we have sold 892 tons of copper ore for 2790*l.*; mundic, 175*l.* 10s., charging four months' costs, including 36*l.* 15s. on account of new shaft, against four months' returns, by which we make a profit of 84*l.* 16s. 6d. But while there are only twelve months' returns in the year, there are, as you are aware, under the four weeks' pay system, 13 months' costs in a year, so that once every year we have the extra month's expenses to bring in; and we are sorry to say it comes rather unexpectedly into these accounts to-day, and, in fact, has been already paid. Thus you have an extra month's charges to be deducted from the profits of four months, reducing the amount to 42*l.* 5s. 1d., and the balance of assets over liabilities to 87*l.* 1s. 5d. In the four months ending June 23 we sold 1027 tons of ore for 3238*l.* We have sold for this account, as you will observe, 892 tons only for 2790*l.*; and while the quantity thus falls short of expectation, the last sale realised 200*l.* less than we anticipated. The expenses of the new shaft have been heavy. At the last meeting the profit made was equal to 2s. per share, and contrary to my wish, as I stated at the time, those present declared a dividend of 2s. 6d. per share. This time the actual profit, notwithstanding the expense of the new shaft (364*l.* 15s.) and cross-cut at 180 (200*l.*), is equal to about 1s. 6d. per share; but the extra month's cost reduces it to 6d., and it is for the meeting to decide whether they will divide it or not. It should be explained also that the costs of the mine have been increased about 200*l.* by the cross-cut at the 108, ordered at last meeting towards the Ding Dong and Bridge lodes, both points that may ere long show important results. The agents hope for the next four months to sell from 800 to 900 tons of ore, and the costs will be less. I think it a pity that we declared a 2s. 6d. dividend last time; but it was the wish of the meeting to do so. If we had divided 2s. then, we should have been able to declare a better dividend to-day.

The SECRETARY then read the following report from the agents:—

Nov. 8.—We beg to hand you our report of this mine for the general meeting to be held on the 10th inst., which is as follows:—During the past four months the new engine-shaft has been cut down, timbered, and made complete to the 120, and sunk 3 fms. 1 ft. below with a plat cut at the level, and a trip-plat cut below the level, making the whole in good working condition, with sinking lift sent down, and all the main rods, stays, pulleys, &c., fixed from the surface to the bottom in proper condition for deepening the mine. The shaft is in regular course of sinking, 12 ft. long by 6 ft. wide, carrying a portion of the lode 3 ft. wide, producing good stones of ore, which at this point appears to be taking a more perpendicular dip, consequently the capel and ore-bearing part of the lode in the footwall is not taken down in the course of sinking, which is over 6 ft. wide, as seen in the trip-plat, and the shaft continued on its proper angle, dipping north about 3 ft. in 1 fm.; after sinking a few fathoms deeper we purpose to cut into the south parts of the lode, when we shall ascertain its full size, character, and value. The new cross-cut at the 108 going towards the Ding Dong and Bridge lodes is extended 12 fms. 3 ft. on the cross-course, which is in places producing fine stones of silver-lead, and in ground highly mineralised and moderately easy for progress. The prospects before the shareholders in driving this cross-cut to intersect those north lodes were discussed at the last general meeting, which need not be repeated. The present prospects of the mine are of a very cheering character, with the 120 extended 65 fms. 3 ft. east of the new shaft, and the lode in the end 7 ft. wide, not cut through, worth 10*l.* per fathom; we are now cross-cutting the north part of the lode to ascertain its full size and value. The 108 is extended 87 fms. 5 ft. east of the new shaft, the lode in the end is 3 ft. wide, with a very kindly appearance, producing occasional stones of good quality ore. The lode in the new rise in the back of the 108, east of the rich stoping ground, is going up, increasing in size to 8 ft. wide, worth 10*l.* per fathom. We have had to contend with some considerable amount of expensive work in securing the north ground with timber, &c., in the back of the 108, where the rich lode has been taken away from 8 to 12 ft. wide; the greater part of this expensive work we are pleased to say is overcome in a safe and satisfactory condition so as to follow the lode, where the principal parts of our former returns have been obtained, and is still looking well, varying in value from 35*l.* to 40*l.* and 50*l.* per fathom. The lode in the rise going up above the 96 is worth 20*l.* per fathom. For the present and future working of the mine we are inclined to think that the same mode of operations should be continued, and the skip-road laid in the new shaft with as little delay as possible.—GEORGE ROWE, HENRY PHILLIPS.

The CHAIRMAN stated that Capt. Rowe was present, and would reply to any questions that shareholders might wish to put.

Mr. ROSEWARNE: How many fathoms have you driven on the cross-out?——Capt. ROWE: 12 fms. 3 ft.

Mr. ROSEWARNE: How much are you paying per fathom?——Capt. ROWE: 7*l.* 5s.

Mr. ROSEWARNE: You are down 3 fms. below the 120 in the shaft, and you are at the tail end of the big bunch. Do you expect to get ore in the shaft before you drive under the bunch?——Capt. ROWE: We believe the course of ore is dipping east, and that the shaft will meet it.

Mr. ROSEWARNE: Do you expect to catch the Goldsworthy bunch?——Capt. ROWE: Yes; but not in this bunch. In reply to further questions Capt. Rowe said they were at the western end of the great bunch of ore, and they would have to get the shaft down and drive east before they got it. He thought the mine was looking better than ever so far as its future prospects were concerned. While they had lodes worth 40*l.* and 50*l.* per fathom they could not say the mine was a very bad one, and he believed that part of the lode was worth from 60*l.* and 70*l.* per fathom—still going up into new ground.

Mr. ROSEWARNE: It is a wonderful course of ore.——Capt. ROWE: There is a very fine, strong, well-looking piece of lode there as you can find anywhere going up into the 196, and I do not suppose that part of the lode has been seen from the top of the rise to surface.

Mr. ROSEWARNE: In looking at the lode I reckon it to be worth about 60,000*l.* worth of ore in that piece of ground.——Capt. ROWE: It is a piece of ground which has to be explored, and if it proves what we think 60,000*l.* would be far short of the mark. In reply to further questions Capt. Rowe said they would require timber for the skip-road. They would not be far from the large bunch of ore by the date of the next meeting, and perhaps they might be in it by that time.

Mr. ROSEWARNE said he and Capt. Dawe had been underground at Wheal Crebor, and they believed that the mine was only in its infancy, and he thought they would have a great prize in it, particularly when the cross-cut was completed which was going out to meet lodes all whole for 120 or 140 fms. to surface, and Capt. Rowe added that if Mr. Rosewarne's expectations were not realised the best experience that could be brought to bear on it would have been cheated.

Mr. BRITTON said the shareholders were given to understand at the last meeting that the expenses would be heavy, and that there would only be a small profit at that meeting.

The CHAIRMAN said that but for the fifth month's costs they would have been able to pay a dividend of 1s. 6d. per share. However, that month's costs had been paid, and every liability had been charged up. He then moved the adoption of the accounts.

This motion was unanimously adopted, and it was decided that the balance at the credit of the shareholders should be carried forward to the next meeting in preference to dividing a small amount.

Cordial votes of thanks were passed to the Chairman and to Capt. Rowe, and the meeting then closed.

THE MERIONETH AGENCY COMPANY.

The statutory meeting of shareholders was held at the offices of the company, Union-court, Old Broad-street, on Thursday,

Mr. JOHN ELLIOTT in the chair.

The notice calling the meeting was read by the SECRETARY.

The CHAIRMAN said that this being a formal statutory meeting, held in compliance with the Act of Parliament, the business to be transacted to-day was merely formal; but Mr. Readwin had been kind enough to attend, and would be able to explain what had been done. But he (the Chairman) would first make a few preliminary remarks as to what the company really was, and why it was founded. As the shareholders were aware, Mr. Readwin was the inventor of a process, which he had proved to his own satisfaction, and to the satisfaction of his friends, for the better treatment of the lower grades of ore containing gold, which led to the taking of a mine in Wales, formerly known as the Glasdwr Mine, for the purpose of testing and deciding the merits of Mr. Readwin's process. That mine was formerly worked by an English company, for copper principally, and it was proved to contain some portion of gold; but the former owners, after spending some 30,000*l.* upon it, finding that they could not get a remunerative price from the smelters, relinquished the working, and the mine remained idle seven or eight years. The machinery and building got into terrible disorder, and many of the buildings were rotten. This company was formed to rework it (having got an offer for working it on favourable terms), and to decide regarding Mr. Readwin's process. That work was commenced four or five months ago, and the directors were now able to announce to the shareholders that the mine had turned out so much better than was anticipated that from copper ore and iron pyrites they might expect excellent results, and profitable returns from that source alone. In consequence of the terrible state of the buildings and machinery a long time had been consumed in effecting repairs. That work had now been thoroughly accomplished, and the new machinery had been put up. But then another delay occurred in testing Mr. Readwin's process. It was found that under an old Act of Parliament (Act V. William and Mary) the Crown had the power to take all the gold-bearing ores in Wales upon payment of 16*l.* per ton, and the company had to give notice to the Crown that they were working the ground. Of course the company would be very glad to sell the ores at 16*l.* per ton, as they could take them out at about 2s. 9d. per ton. That notice had now expired, and the company were at full liberty to begin the work of amalgamation on Mr. Readwin's plan. He would read Mr. Readwin's report, which was as follows:—

Nov. 7.—Glasdir-issa Mine: I am happy in being able to give you a satisfactory report of this mine. In the six months (May 2 to Oct. 31) a new water-course, 50 yards in length, has been excavated, and an ample supply of water obtained. A new bridge has been made over the river. All roadways have been repaired and tramways re-laid. All the machinery and old shedding have been substantially renovated, and a good deal of it made entirely new. A new smiths' shop and forge have been built. A large double-floored shed, 52 ft. by 38 ft., has been erected to hold 80 amalgamating machines. A complete assay office has been provided, with testing apparatus, furnaces, chemicals, &c. The total expenditure has been 2554*l.*, which includes the sum of 652*l.* spent in clearing up and opening the mine, and raising cupriferous rock and iron pyrites, and for materials used in mining, and remaining in stock, &c. A set off to this last-named amount is found in the following facts:—Of about 60 to 70 tons of copper ore, already dressed for sale, and 1000 to 1200 tons of cupriferous rock raised and paid for, ready for crushing and dressing. The mine is looking exceeding well throughout, and evidences improvement both in quantity and quality of the copper ore. The iron pyrites yield will also be satisfactory. The crushing and dressing power (in continuous work) is equal to 1000 tons or more of rock per month, which, taken through and through, should yield at least 100 tons of dressed copper ore during the calendar month. The pyrites yield can be made equal to ordinary demand without requiring any of the crushing power. The rock mass is capable of affording many times the above-named quantity of ore; in short, there is "any quantity of it," and treble the existing machinery might be at once employed. In compliance with the Act 5 William and Mary, with regard to Mines Royal, the 30 days' notice of auriferous copper ore having just expired, and the Crown not having elected to purchase the ore at 16*l.* the ton, according to the terms of the said Act, it is proposed to commence continuous amalgamation of the ore for gold to the full extent of the amalgamating power. In another month's time continuous sales of ore, &c., may be effected. It has been thought advisable to have 1000 tons of rough cupriferous ore and 50 or 60 tons of dressed ore in stock, so that an average continuity of delivery to smelters may be guaranteed. At the moment the values of the ores have not been ascertained; they are daily expected from Swansea and Neath. By the end of this month an approximate value of the contained gold and silver will be known from bulk. The continuous working will require nearly 50 miners and helpers, the machinery 15 men and six boys, costing together 26*5l.* the calendar month. In conclusion, I may add that should the ore yield by amalgamation only ¼ oz. of gold to the ton, the copper ore will have been obtained at a cost next to nothing.—Q.E.D. From the results of experiments on the ore hitherto I am of opinion that it will be so proved. The undertaking is no longer a speculation, and I firmly believe that the work at this mine will for a very long time be a steadily going and reasonably profitable business.—T. A. READWIN, F.G.S.

He might add that he (the Chairman) went down and examined the mine two or three months ago, and was very much struck with its appearance, and the admirable manner in which the tunnel which pierced the mountain into the lode had been executed by the former owners of the Glasdwr, which gave an opportunity of extending the works in to reach the better class of ores which were now being taken out. If the former owners had gone on they could have made a profit out of the mine. He could confirm all that Mr. Readwin had stated about the terrible state of the buildings. When he was there, the buildings wanted total renewal, and he was surprised that the work had been done so effectually for the 2500*l.* which had been expended. Against that they had in stock about 500*l.* in value of ore raised, and they were now taking out so large a quantity of ore that he hoped they would certainly turn the scale from expenditure to profit in a very short time. (Hear, hear.) He might state that the amount of shares at present issued was 11000, and there were about 5000 more which could be issued; but the directors thought that 2000 would provide them with sufficient working capital, as the ore was admirably situated for raising, and existed in such enormous quantities. When he was down the lode was 42 ft. wide, and was now wider. The mine was full of promise, but that was not the object for which the company was started to work the mine. It was started to obtain a thoroughly working test of Mr. Readwin's system of treating low grade ores for gold at a profit. This was not merely a matter of local importance or national importance, but of world-wide importance. All over the world he believed the quantity of gold was infinitely greater than had been imagined, but had not been treated at a profit. If this company's experiments were successful, there was a boundless field for future work. He was reminded of a minor point which he would correct. He spoke generally when he said the company had taken the mine, but what they had really done was to make an arrangement with the lessees to work in conjunction with them. No doubt many of the Indian mines would be found to contain gold; he had had many brought under his notice, and knew pretty well what they were, and there was a great question to be solved, and that was how to get out the gold which was there at a profit. He did not think Mr. Readwin professed to say that he could get out every particle of gold, but what he did say was—"I can get out the produce at a cheap rate, and make it a commercial success, and leave the tailings to be dealt with by some other process if required." The shareholders of this compniny wanted to make it a commercial success; people did not go into an undertaking of this kind to demonstrate problems in chemistry, but to make 5*l.* into 10*l.* if they could. (Cheers.)

Mr. T. A. READWIN, F.G.S., said that in his report he had touched upon nearly all the points. It was perfectly true that the whole of that great mountain on which the mine was situated seemed saturated with copper. It was not to be called a lode, or anything like it; it was a rocky mass, saturated with copper ore more or less throughout. He knew of nothing in this country like it except in the case of Parys Mountain, and that was not so extensive. Judging from the present state of the bottom of the mine and its improvement he believed by a little sinking the mine would become much richer. There was plenty of water power. Coming to the question of gold, he said his problem was to get enough gold to pay mining costs. That had never been tried before. He might not altogether succeed, but he thought he should, and he certainly meant to do all he could. Of course, the gold was not equally distributed. He had seen gold there in which whore points as big as the end of his finger. How often it occurred in pockets he did not know. When he treated 2 tons on his own account they yielded roughly and carelessly treated about 5 dwts. per ton, and if it did that it would pay mining costs. He did not profess his plan would get all the gold out; he knew it would not, but inasmuch as it could be concentrated in the ordinary way by the shaking table it would retain value which it never retained before. He had made a verbal arrangement with Messrs. Vivian that if there was contained gold in the stuff they would make an allowance for it. This had never been done before. He had on one occasion got as much as at the rate of 11 ozs. of gold to the ton. People would say, "You can fairly sample all that stuff to know approximately what it is worth." This he denied altogether, and he denied it 20 years ago, for it would involve what could never happen—that every particle of gold must be of equal size, and equidistant one from the other, which under no natural circumstances ever took place. The problem they had to solve was whether the amalgamable gold would give a profit on the working, leaving the residue as contained gold to be dealt with in any way other persons might treat it.

The CHAIRMAN: What I gather is that your improved system of preparing quicksilver amalgamates a large proportion of the gold which is in the ore, but the tailings you can arrange to be treated through Vivian's people afterwards.

Mr. READWIN: Yes; all the rest is saleable.

The CHAIRMAN said he understood they could sell the pyrites separately for special purposes.

Mr. READWIN said that was so, and they would probably fetch about as much as the current rate of Spanish ores, which was about 40s. per ton, and it could be got out at a cost of about 5s. per ton altogether.

The CHAIRMAN, in reply to Mr. Browne, said about 500*l.* had been spent on machinery, and they could pass through about 10 or 12 tons a day. He expected to get ¼ oz. of gold per ton. The total expenditure had been 2500*l.*, all privately subscribed. The directors thought that the issue of 2000 1*l.* shares would give them ample to try this great experiment, and he hoped shortly to announce all the success they anticipated. He might mention that one important point in connection with this process was that no robbery of gold could be effected, inasmuch as by a contrivance of Mr. Readwin the gold could not be got at.

Mr. READWIN said it was right to mention that his machine was an improvement upon the patent of Mr. Bashley Britain. The quicksilver which he (Mr. Readwin) used in the process was specially treated by himself, and he used about a tithe of the quantity, and did not lose any of it.

The meeting then broke up.

EAST POOL MINING COMPANY.

The quarterly general meeting of shareholders was held at the mine, on Monday,—Mr. G. A. MICHELL in the chair.

The notice convening the meeting having been read the statement of accounts showing a profit on the three months' working of 7767*l.* 12s. 3d., and a total credit balance of 10,232*l.* 10s. 10d., out of which the committee proposed a dividend of 7520*l.* (1*l.* 3s. 6d. per share), leaving 2712*l.* 10s. 10d. to carry forward. The report of the managers—Capts. John Maynard and C. F. Bishop—and agents, Capts. John Penhale and S. Curtis—was submitted, In referring to the various points of operation it was stated that since the last meeting they have communicated with the winze sunk from the 160. This level is being driven by a boring machine. The lode at present is about 8 ft. wide, and worth for tin 60*l.* per fathom. We have a winze sinking in the bottom of this level near the eastern cross-course, which is down 7½ fms. This will soon communicate with the above-mentioned cross-cut. The lode in the winze is worth 8*l.* per fathom. At the 160 we have two stopes working, one east and one west of winze, worth 30*l.* per fathom each stope. The 140 is driven west from Tredinnick's winze, and is worth for tin and copper 30*l.* per fathom. The 120 is driven east from the western cross-course about 40 fms., and since the last meeting we have sunk a winze and communicated with the 130. The lode is worth 12*l.* per fathom. This has opened a very important part of the mine for copper. The valuations in this report are made at per cubic fathom.

The CHAIRMAN congratulated the shareholders upon his having as good a report to present to them as they had ever received before; indeed, he believed it was the best. He did not think it was necessary for him to say much as regards their operations, for they spoke for themselves. He did hope at one time during the past 12 weeks that they would have returned the whole of the tin raised, but unfortunately for them they had a "let" at the stamps which prevented their doing so. Had they returned the whole of their tin they could have comfortably given a dividend of 25s. per share and carried forward a very handsome balance to increase their reserve funds. The mine was now becoming an adult, if he might use the expression. It was no longer in the minority, and it was now speaking for itself. He believed, strictly speaking, that their better days were to come, not only as regards the results of the mining operations, but also as regards a better price for minerals. He was convinced of one fact, that the demand for tin had overtaken the supply, and the demand was really now in excess of the supply. It was consoling to know that a gradual inroad was being made in the stocks of tin, and that that had told on the profit shown that day. He concluded by moving the adoption of the report and accounts, and the declaration of a dividend of 1*l.* 3s. 6d. per share.——Mr. HARRIS seconded the motion, and it was unanimously agreed to.

Mr. MARTYN (the purser), in reply to Capt. PENTREATH, stated that the average price of their tin for the past quarter had been 53*l.* 10s. 4d. per ton, and added that they had sent to the stamps this last quarter 315 tons 3 cwts. of tin, and they had sold 302 tons 4 cwts., leaving a balance of 12 tons 18 cwts. to be returned. The tin dresser had been unable to return the whole of the tin sent down to the stamps, but had this been done they would have been able to give a 25s. dividend that day and carry forward a balance of 460*l.* 12s. Of course, although that 12 tons of tin was not yet returned, they would have it in the next account, so that they had started under favourable auspices for the next time. The 302 tons of tin returned this quarter was a much larger quantity than they sold in the previous quarter.

The CHAIRMAN, in reply to Mr. MILFORD COCK, said they got 58*l.* 15s. for their first tin, but the second tin, which was contaminated with wolfram, brought back the average to 53*l.* 10s. 4d., as the purser had told them.

Mr. MARTYN added that they had a large quantity of wolfram on the mine for which two or three years ago they were offered 2000*l.* or 3000*l.* He hoped they would soon have a market for it, and it would be a valuable asset to the mine.

Capt. BISHOP remarked that he thought the capabilities of the mine had been so clearly shown that day in the excellent profit they had made, and also in the report, that it was almost unnecessary to say another word, but still they must remember when they considered the great amount of stuff drawn that it required continual attention. They had been taking out the old skiproad and putting in a new one during the last quarter, and they hoped soon to have shoot passes which would greatly facilitate their work. When this work was done they proposed to put in a larger skip on a different principle to the present skip. They were making arrangements for more stamping power, and this without stopping the present work. East Pool was the second mine in Cornwall, and would do better in the future than in the past.

Mr. C. W. CLINTON, in proposing a vote of thanks to the executive and managers of the mine, said the adventurers must all be pleased with the result of the quarter's working, and they must all feel indebted to the committee for what they had done. (Applause).——The motion was seconded by Mr. JOHN MAYNE, and carried unanimously.

The CHAIRMAN, in thanking the meeting for the compliment, said he felt confident of one thing—that they had done their best; and he felt certain that the satisfaction the shareholders had expressed at their management of the affairs of the mine would be an inducement for them to endeavour to do still better in future. The meeting then separated.

THARSIS SULPHUR AND COPPER COMPANY.

An extraordinary meeting of shareholders was held on Wednesday in Glasgow (Mr. CHARLES TENNANT, M.P., presiding), for the purpose of considering special resolutions providing—first, that the company may from time to time, by special resolution, modify the conditions contained in the Memorandum of the Association, so as to reduce its capital to such an extent and such manner as may be determined; and, secondly, to modify the conditions contained in the Memorandum of Association so as to subdivide its shares into shares of smaller amount than is fixed by the Memorandum.

The CHAIRMAN, in moving a resolution to the effect thus indicated, said: We are met to-day to take the steps which are necessary to carry out the proposals indicated by me as Chairman of the board at our annual meeting held on June 22 last. These proposals are, as you are aware—1st. To consolidate the 7*l.* shares by calling up 1*l.*, making them thus 8*l.* paid, and giving in exchange for five of these shares four paid-up shares of 10*l.* each.—2nd. To cancel the 2*l.* remaining uncalled. This, we are advised, involves a reduction of capital under the Act, and hence the necessity for the first of our special resolution.—3rd. To create 7554 new shares of 10*l.* paid, and to issue at the same time the 760 shares hitherto unissued, making together 8224 shares, which we ask you to leave in our hands to dispose of in the way we deem best for your interests. By these arrangements we get 31,100*l.* of capital from the 7*l.* shares, and 82,240*l.* from the new issue, making together 113,340*l.*, which brings up our total capital to 1,250,000*l.* paid up in full. Assuming that we place these shares at 40*l.* per share we shall get a sum of 360,000*l.*, of which 113,340*l.* will, as I have already stated, go to the debtor of capital account, and the remainder, representing the premium 246,720*l.*, to the debtor of reserve accounts. The cash in bank will thus be increased by the total of 360,000*l.*, which we shall devote to the paying off of our debentures as they fall due, the amount of which is now 355,600*l.* The reserve fund will thus stand at 316,844*l.*, making, with our railway sinking fund of 100,000*l.*, a total of 416,844*l.* Our next proposal is to give the option to shareholders of having their shares converted into "share warrants to bearer." This privilege will in all probability be largely availed of by our French friends, who already hold about one-third of our stock. The change no doubt tends to facilitate transactions in the stock, and in this point of view will I believe be, on the whole, regarded with favour. As to the subdivision of our shares into shares of a smaller denomination (say of 5*l.* or of 2*l.* each) your directors do not at this moment see their way to take any action. It is no doubt a matter on which various opinions may with propriety be held. Our French colleagues and our French shareholders are much in favour of it, as also some of our large holders here. By the second resolution which I shall have to submit to you the Board, however, asks you to place in the hands of the Company the necessary powers should the shareholders at any time decide in the favour of a subdivision of the stock. There is still another change in our arrangements which I must bring before you, and which you will, I am sure, approve—viz., to balance our books at the end of the year instead of February 28. The latter date was adopted in connection with our amalgamation with the French company. It is found to be inconu-

venient and costly, involving an extra stoppage for stocktaking on the mine and at our various works in this country, and thus interfering with the general business of the company. Our annual meeting will be held in April, and our dividend paid in one sum in May as formerly.——The motion proposed by the Chairman was carried unanimously, as was also the second motion, with reference to the subdivision of shares.

THE EMMA SILVER MINING COMPANY.

A special meeting of shareholders was held on Monday, at the Cannon-street Hotel, London,—Mr. ALEX. MACDOUGALL in the chair,—for the purpose of calling over the List of Contributories at the time when the company went into liquidation. It was stated that the object was with the view to issue new shares, in order to form a new company, to those shareholders who were entitled to shares in the new company.

Mr. F. W. SNELL, solicitor, read over the list, which he stated numbered 1444, representing 50,000*l.* capital of 20*l.* shares fully paid-up. There was, therefore, no further liability on the part of the shareholders. The name of the new company would be "The New Emma Mine."

THE NEWQUAY MINING COMPANY.

The first ordinary general meeting of this company was held on Thursday at the offices, Great George-street, Westminster,

Mr. FIDLER in the chair.

Mr. SKINNER (the Secretary) read the notice convening the meeting

The CHAIRMAN said that this was the statutory or first meeting, and there was none but formal business to transact. The directors had gone through all the documents and papers connected with the mines, and the registration had been completed. He and his colleagues had visited the mines and inspected underground and above, and were well pleased with the property they had taken. As would be seen by the prospectus, they had associated with them Mr. R. W. Rickard, who, perhaps of all men he knew, had the largest experience as a metalliferous miner. They had been highly pleased with the way in which the matter had been put before them, and he had given estimates of the expenses of the various mines they intended to prosecute. He (the Chairman) had no doubt that good results would follow, and that in a short time they would be able to report to the shareholders that they were in a very satisfactory condition. He (the Chairman) then read the report of Mr. Rickard. Certain works were springing up in the neighbourhood which no doubt would tend to develope the mines in a manner which they little expected, and they would find a market for the iron ore, which he was sure would pay the company handsomely. Some of the shareholders, more particularly those in Liverpool, were interested in the Cornwall Minerals Railway, and might be of assistance to this company in using what influence they could in order to effect a reduction of the rates, which appeared to be very excessive. He thought a reduction would not bring about a decrease, but an increase in the railway company's receipts.

Capt. RETALLACK, who said he had watched the mines with the greatest interest, fully endorsed what Mr. Rickard had said. He was perfectly certain that as far as Deer Park was concerned, in twelve months they would have another West Chiverton Lead Mine.

The CHAIRMAN added, that Capt. Rickard, contrary to his custom, contemplated taking shares in the mines because he had such faith in them.

Capt. RETALLACK read a letter which had been received from one of their local agents, stating that he was very much pleased with the promising appearance of the lode, and was confident they would make some important discoveries.

Mr. DUFF MORISON said he went down on behalf of the Liverpool shareholders and examined everything, and found all in very good order. Everything had been done with a great amount of regularity, and he thought they had every reason to congratulate themselves on the acquisition of the property.

The CHAIRMAN said that some of the largest shareholders in Liverpool were so pleased with the reports that they were increasing their holding in the company. They had ample space for two or three times the operations they intended to undertake.

Capt. ARMSTRONG asked whether the Chairman had been on the mines and knew them?——The CHAIRMAN replied in the affirmative. He knew something of machinery, and that it was all in first-class order, and the only pumping machinery which they would require would be for the Deer Park Mine, which was not a heavily watered mine.

A SHAREHOLDER: What success have you had in allotting the shares?

The CHAIRMAN replied they had allotted up to 15,000, and promises of another 5000, but they did not want to issue more shares. They had sufficient capital without any returns to carry them on for over two years.

In reply to a further question, the CHAIRMAN said that any future issue of shares, if it were decided on, would be first offered *pro rata* to the existing shareholders.

A SHAREHOLDER thought they were fortunate that the vendor did not take any of his payment in cash, as in some cases, and then leave the concern.

Colonel CARTER said that when the name of Mr. McGregor was mentioned to him he had confidence in the concern, as he knew the stock from whence that gentleman came. In fact, he knew his name ever since that remarkable circumstance happened on the broad ocean—the loss of the Kent by fire. He thought that Mr. Duncan McGregor was the child, the infant that was first rescued from that awful conflagration. Sir Duncan McGregor was a man of extraordinary high character and high repute and probity, so that he thought they were safe in the hands of his son. With regard to the officers and all those who were concerned in the active duties connected with the mine for the character and energy they had displayed, and above all probity, he thought they represented the old type of their future. He moved a vote of thanks to the Chairman and directors for the manner in which they had looked after the interests of the shareholders.

The motion having been seconded and carried *nem. con.*, the CHAIRMAN said the directors were not entering on this mine without knowing what they were about. He believed there were few mines in Cornwall that would be better generalled, and they had appointed good men underground.

The proceedings then terminated.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVEY, mine sharedealer, Redruth (Nov. 10), writes:—Our market has been dull throughout the week. Prices of several shares declined, and very little business has been done. Dolcoaths have fallen 2½, East Pools have pretty well held their own since the declaration of a 23s. 6d. dividend. To-day a few Dolcoaths, Carn Breas, East Pools, and South Frances, changed hands, but other shares are neglected To-day's prices are as follows:—Blue Hills, 2½ to 2¾; Carn Brea, 28 to 28½; Cook's Kitchen, 25 to 25½; Dolcoath, 84½ to 85; East Pool, 41½ to 42; Killifreth, 28s. to 30s.; Mellanear, 4¼ to 4½; New Cook's Kitchen, 5¼ to 5¾; New Kitty, 1⅞ to 2⅛; North Busy, 15s. to 17s.; Penhalls, 1 to 1⅛; Phœnix, 3½ to 4; Pedn-an-drea, 3⅜ to 3⅝; South Condurrow, 10½ to 11; South Crofty, 9¾ to 10¾; South Frances, 16⅛ to 16⅞; Tincroft, 19¼ to 19½; West Basset, 13 to 13⅛; West Frances, 17½ to 18; West Kitty, 8⅝ to 8⅞; West Peevor, 12½ to 13; West Poldice, 5⅞ to 6⅛; West Tolgus, 23 to 25; West Seton, 14 to 16; Wheal Agar, 14 to 14⅛; Wheal Basset, 5 to 5¼; Wheal Comford, 2½ to 2¾; Wheal Grenville, 11¾ to 12; Wheal Jane, 25s. to 27s; Wheal Peevor, 12 to 13; Wheal Kitty (St. Agnes), 1¼ to 1⅜; Wheal Prussia, 1¾ to 1½; Wheal Uny, 3¼ to 3½.

— Mr. J. H. REYNOLDS, stock and share broker, Redruth (Nov. 10), writes:—During the week business has been restricted, and lower prices prevailing. On Monday last a dividend of 1*l.* 3s. 6d. per share was declared at East Pool, and a good report presented to the shareholders. Dolcoaths shares have receded from 87, 88, to 85. Subjoined are the closing prices:—Blue Hills, 2 to 2¼; Carn Brea, 28 to 28½; Camborne Vean, 10s. to 15s.; Cook's Kitchen, 24¾ to 25¼; Dolcoath, 84¼ to 85¼; East Pool, 41½ to 42; East Blue Hills, 10s. to 12s. 6d.; Killifreth, 1⅛ to 1½; Marke Valley, 1¼ to 1½; Mellanear, 4½ to 5; New Cook's Kitchen, 5 to 5½; New Kitty, 2 to 2¼; North Busy, ¾ to ⅞; North Herodsfoot, 10s. to 12s. 6d.; Pedn-an-drea, 3⅜ to 3½; Phœnix, 3½ to 3¾; Penhalls, 1¼ to 1½; South Condurrow, 10¾ to 10¾; South Crofty, 9¾ to 10; South Frances, 16⅝ to 16⅞; South Tolcarne, 1½ to 1¾; Tincroft, 19 to 19½; West Basset, 13 to 13½; West Frances, 18 to 18½; West Kitty, 8½ to 9; West Peevor, 13¼ to 13¾; West Polbreen, 1¼ to 1½; West Poldice, 6 6¼; West Seton, 16 to 18; Wheal Agar, 14 to 14½; Wheal Basset, 5¼ to 5½; Wheal Boys, 2 to 2¼; Wheal Grenville, 11¾ to 12; Wheal Hony and Trelawny, 2½ to 3; Wheal Jewell, ⅝ to ⅞; Wheal Kitty, 1½ to 1¾; Wheal Peevor, 12½ to 13; West Tolgus, 22½ to 25; Wheal Prussia, 1½ to 1¾; Wheal Uny, 3¼ to 3½; Wheal Jane, 1½ to 1⅜.

— Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (Nov. 10), write:—Very little business has been done in the past week, and a tendency to realise has been apparent, in spite of the improved prospects of the tin market. At East Pool a dividend of 75*l.* was declared on the 8th inst. Closing quotations annexed:—Blue Hills, 2½ to 3; Carn Brea, 28 to 28½; Cook's Kitchen, 24¾ to 25½; Dolcoath, 84½ to 85½; East Pool, 41¾ to 42¼; Killifreth, 1⅜ to 1⅝; New Kitty, 2 to 2⅛; New Cook's Kitchen, 5 to 5½; North Busy, ¼ to 1; Pedn-an-drea, 3½ to 3¼; Santa Gertrude, 170 to 175; South Caradon, 50 to 60; South Condurrow, 10¼ to 10½; South Crofty, 9¾ to 10¼; South Frances, 16⅝ to 16⅞; Tincroft, 19 to 20; West Basset, 13 to 13½; West Kitty, 8¾ to 9; West Poldice, 5¾ to 6; West Peevor, 12¼ to 13; West Frances, 17¼ to 18¼; West Seton, 15 to 16; Wheal Agar 14 to 14½; Wheal Basset, 5 to 5½; Wheal Boys, 2 to 2½; Wheal Grenville, 12 to 12¼; Wheal Jane, 1¼ to 1⅜; Wheal Peevor, 12½ to 13; Wheal Prussia, 1½ to 2; Wheal Uny, 3½ to 3¾; West Providence, 1¼ to 1½; West Tolgus, 24 to 26.

— Mr. M. W. BAWDEN, Liskeard (Nov. 10), writes:—The mining market continues dull and devoid of animation, although the tin standard is still in the ascendency with every probability of reaching 100*l.* It has but little effect on the market, and several of the leading high priced shares are being offered at lower rates. Dolcoaths have receded 5*l.*, holders realising. West Basset in demand, and the mine considerably improved. Subjoined are the closing prices:—Bedford United, 1⅜ to 1½; Carn Brea, 28 to 28½; Cook's Kitchen, 25 to 25½; Dolcoath, 84 to 84½; Devon Consols, 8 to 8¼; East Caradon, ½ to ⅝; East Herodsfoot, 1 to 1⅛; East Pool, 41 to 41½; Gawton United, ⅜ to ⅞; Glasgow Caradon, ⅞ to 1; Gunnislake (Clitters), 3 to 3½; Herodsfoot, ¼ to ⅜; Hingston Down, 1¼ to 1⅜; Killifreth, 1⅜ to 1¼; Marke Valley, 1¼ to 1⅜; Mount Carbis, 3 to 3¼; New West Caradon, ½ to ⅝; North Herodsfoot, ⅛ to ⅜; Old Gunnislake, ⅜ to ½; Phœnix United, 4 to 4¼; Prince of Wales, ⅝ to ¾; South Caradon, 50 to 51; South Condurrow, 10 to 10¾; South Crofty, 10½ to 10¾; South Devon United, 1¼ to 2; South Frances, 16 to 16½; Tincroft, 19 to 19½; West Basset, 13½ to 14; West Caradon, ⅝ to ¾; West Frances, 17 to 17¼; West Mary Ann, 1 to 1⅛; West Phœnix, 1¼ to 1¾; Wheal Agar, 14¼ to 14¾; Wheal Basset, 5¾ to 6; Wheal Crebor, 2⅞ to 3; West Tolgus, 22½ to 23; Wheal Grenville, 12¼ to 12¾; Wheal Hony and Trelawny, 2¾ to 3; Wheal Kitty, 1¾ to 2; Wheal Jane, 1½ to 1⅝; Wheal Peevor, 12½ to 13; Wheal Uny, 3¾ to 4.

— Mr. JOHN CARTER, mine sharedealer, Camborne (Nov. 10), writes:—The improvement which has taken place in the price of tin during the week has had little or no effect in enhancing market values of Cornish mines, which, on the contrary, have almost daily shown a decline in quotations. There has been of late no demand for investment, or next to none; and, consequently, market speculators have a large amount of stock on their hands. East Pool declared a dividend of 23s. 6d. on the 7th inst.; shares declined to 41, but have since recovered to 41½ buyers. Dolcoaths declined to 84¾ sellers, Carn Breas to 28½, Tincrofts to 19⅝, Killifreths to 30s., Pedn-an-dreas to 3*l.* 8s. 9d., West Basset to 13¼, West Peevor to 13, Wheal Agar to 14¼. West Tolgus suddenly jumped to 27 on a reported discovery in the 85 fm. level, but closed to-day with only sellers at quotations. Closing prices annexed:—Carn Brea, 28 to 28½; Cook's Kitchen, 24½ to 25¼; Dolcoath, 84 to 85; East Pool, 41½ to 42; East Blue Hills, ½ to ⅝; Killifreth, 29s. to 31s.; Mellanear, 4½ to 4¾; New Cook's Kitchen, 5 to 5½; New Kitty, 2 to 2¼; North Busy, ¾ to 1; Pedn-an-drea, 3¼ to 3½; South Caradon, 50 to 55; South Condurrow, 10½ to 10¾; South Crofty, 10 to 10¼; South Frances, 16¾ to 17; Tincroft, 19¼ to 19¾; West Basset, 13 to 13¼; West Frances, 17¾ to 18¼; West Peevor, 12¾ to 13¼; West Poldice, 6 to 6¼; West Polbreen, 1¼ to 1½; West Seton, 14 to 15; West Tolgus, 23 to 25; Wheal Agar, 14 to 14¼; Wheal Basset, 5 to 5½; Wheal Grenville, 11¾ to 12; Wheal Peevor, 13¼ to 13¾; Wheal Kitty, 1½ to 1¾; Wheal Jane, 1½ to 1¼; Wheal Uny, 3⅜ to 3⅝; West Kitty, 8¾ to 9.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, sharebrokers, Queen's Chambers, Market-street (Nov. 10), write:—Again the week's business has been curtailed by one day, owing to the holiday for Lord Mayor's Day—an observance which it has not been usual to celebrate as a closed day. Notwithstanding this, however, a very tolerable number of transactions are reported, and spread over more companies than has been the case lately. In cases where other than solitary dealings have been marked, latest prices are in most instances advanced. The tendency most noticeable—and this remark applies to all the classes reported upon—seems towards better figures, a very buoyant tone prevailing all round.

BANKS, though producing a few dealings, do not show any great activity. Quotations for the local concerns remain stationary and steady, whilst Bank of Liverpool are ⅜, and Nationand Provincial ½ higher. There are no adverse changes.

INSURANCE.—Several lots have changed hands, but no amount of business has been done in any one concern. Changes of quotations show advances in slight majority, but with marked preponderance. Higher: Manchester Fire Inurance, ¼; Boiler Insurance and Steam Power, ⅛; Liverpool and London and Globe, ⅛; and Maritime and British and Foreign Marine, 1-16 each; Lower Ocean Marine, ¼; Sea, 1-16; and Underwriters' Association, 1-16.

COAL, IRON, &C., AND MINING.—This class has attracted most attention, and exhibits most movements, both as regards business done and changes in figures. Though this market is not so excitedly advancing as was the case a few weeks ago, a steady and discriminating upward movement is to be noted, resulting in a number of favourable changes, though few of any great moment; whilst the advance alterations are few and unimportant. Higher: Telegraph Construction and Maintenance, 2; West Cumberland Steel, &c., 1; Tredegar Coal, &c., A, 1½; Tharsis, Sulphur, &c., ½; United States Rolling Stock, ½; Tredegar, B, ⅜; and a few others of minor importance. Lower: Bolckows, 12*l.* paid, ⅜; Browns, ¼; and South Indian Gold, 1-16.

COTTON SPINNING AND MANUFACTURING.—During the last few days the feeling in this market has been decidedly better, and though figures are not quotably much changed buyers are much more willing to bid than they were at the time of our last report.

TELEGRAPHS AND TELEPHONES.—In the former the changes (with the exception of a decline of ⅛ in Globe ordinary) are all for the better, but few transactions are reported. Anglo ordinary are 1; ditto, preference, 1⅛; ditto. deferred, ¼. Direct United States Cable, ⅜; and Western and Brazilian ⅛ higher. Lancashire and Cheshire Telephone show a further fractional decline.——CORPORATION STOCKS, &C., with the exception of a rally of ⅛ in Manchester stock, are without any feature of interest.——CANALS: Solitary transactions are marked in Ashton and Oldham Canal, and on Bridgewater Navigation, otherwise there is nothing to report therein.——MISCELLANEOUS where changed are mostly for the better, but no severe alterations in either direction are noticeable.

RAILWAYS.—Since we last reported several violent fluctuations have occurred, highest points in most cases being reached on Tuesday last. Lancashire and Yorkshire have been prominent in the rise, and touched 137½. Scotch and other heavy lines were quoted at considerably enhanced prices, but the relapse has come rather heavily, and they show uncertain this evening. Midlands have maintained an advance of 1¼, the issue of new stock, for which a meeting of the proprietors is called for Nov. 29, probably rendering the enquiry more than otherwise would have been the case. Canadians were good also up to close on Tuesday evening. The Grand Trunk traffic announced this morning, 454 increase, brought quite an important addition to the number of buyers, and all issues were well supported; a decline has, however, come about this afternoon on some sharp selling, and they close rather flat. Americans are weaker, in sympathy with New York prices.

HULL.—Mr. W. FOWLER SUTTON, stock and share broker, St. Mary's Chambers (Nov. 10), writes:—The stock markets were decidedly good early in the week, and English rails looked like advancing still further. To-day, however, they have eased off on realisations, but the probabilities remain in favour of higher prices shortly. Notwithstanding adverse circulars Canadians keep firm, and one or two good traffics would speedily tell upon their quotation. To-day's Trunk traffic shows a small increase, but the comparison is against a low "take" last year. American rails sluggish. A good advance was expected before now, and appears to be still looked forward to. Local stocks unaltered. Hull Banks, 12¼; London and Yorkshire Bank, 32s.: Hull Docks, 93; Hull Trams, 9; Hull Gas, 55; British, 34½. Earle Shipbuilding, 40 paid, 25. Hull and Barnsley Rails, 2*l.* paid, 1⅛ to 1¼.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, sharebroker and ironbroker (Nov. 10), writes:—During the past week the markets have steadily improved, owing to the encouraging reports of trade and the easier state of the money market.

In shares of coal, iron, and steel companies the movements for the week comprise advances of 15s. per share on Marbella Iron; 8s. 6d. on Clyde Coal; 3s. 9d. on Ebbw Vale; 2s. 6d. on Omoa and Cleland; and about 1s. 3d. each on Benhar Coal and Chillington Iron. On the other hand; Steel Company of Scotland have declined 5s. per share; Bolckow Vaughan, 2s. 6d.; and Glasgow Port Washington, 1s. 6d. In the Scotch pig-iron market the price of warrants has advanced from 49s. 7½d. to 51s. 1d., chiefly owing to rumoured strikes and the favourable Board of Trade return. Anglo-Bilbao Steel offered; Benhar Coal are at 11s. 6d. to 12s. 6d.; Bolckow, Vaughan, 23⅝; Chillington Iron, 68s. 9d.; Clyde Coal improved from 68s. to 75s., but are now about 67s.; Cardiff and Swansea Coal, 40s. to 50s.; Chatterley Iron, 6 to 8; Ebbw Vale, 10⅜ to 11½; John Bagnall and Sons, 5s. to 10s.; Llynvi and Tondu, 10 to 11; ditto, pref., 5s. dis. to par; Marbella Iron improved from 97s. 6d. to 5l. 18s. 9d., and are now about 5¾; Newport Abercarne, 8 to 8½; Omoa and Cleland, 28s. 6d. to 29s. 6d.; Rhymney Iron, debentures, 103 to 106; Shotts Iron, 45 to 50; Steel Company of Scotland, 9¼; and West Cumberland, 13 to 14.

In shares of foreign copper and lead concerns, the tendency of prices continues upwards. Rio Tinto have advanced 17s. 6d. per share; Tharsis (New), 12s. 6d.: Tharsis (10*l.* paid), 8s. 9d.; Panulcillo, 5s.; Canadian Copper, 1s. 6d.; and Huntingtons, 1s. At a meeting of the Tharsis Company yesterday the proposals for alteration in the capital were unanimously agreed to, and the date of balancing was altered to Feb. 28, so that the dividend will now be paid in May; it was stated that the French shareholders now hold one-third of the company's stock. During the past week sales have ranged from 43 to 44. Canadians are at 31s. to 33s.; Huntington, 46s. to 47s.; Panulcillo, 5¼ to 5¾; Rio Tinto, 26⅛; and Santa Cruz, 10s. to 15s.

In shares of home mines prices continue firm. Glasgow Caradon are 1s. higher, at 25s., and the new shares have been done at 18s. Bwlch United are at 55s. to 60s.; Carn Camborne, 40s. to 50s.; Cambrian, 2s. 6d. to 7s. 8d.; Carnarvon Copper, 12s. 6d. to 15s.; Drakewalls, 10s. to 15s.; Devon Great United, 17s. 6d. to 22s. 6d.; D'Eresby Mountain, 40s.; East Craven Moor, 5s. to 7s. 6d.; East Wheal Rose, 5s. dis. to par; East Devon Consols, 30s.; East Blue Hills, 7s. 6d. to 10s.; East Roman Gravels, 12s. 6d. to 15s.; Gover Consols, 5s. to 10s. Goodevere, 2s. 6d. dis. to par; Great Holway, 4½ to 5½; Gunnislake (Clitters), 62s. 6d. to 67s. 6d.; Indian Queens, 5s. to 10s.; Killefreth, 30s. to 35s.; Kit Hills, 12s. 6d. to 17s. 6d.; Lady Ann, 20s.; Lady Berthas, 17s. 6d. to 20s.; Mounts Bay, 1s. 3d.; North Busy, 17s. 6d. to 20s.; North Herodsfoot, 7s. to 8s.; North D'Eresby, 20s.; New Penrose, 5s. to 7s. 6d.; Northern Lead, 10s. to 12s. 6d.; Old Gunnislake, 5s. to 7s. 6d.; Old Shepherds, 5s. dis. to par; Okel Tor, 20s. to 30s.; Parka Consols, 5s. to 7s. 6d.; Pandora, 10s. to 15s.; Pen-yr-Orsedd, 15s. to 20s.; Prince of Wales, 10s. to 15s.; Pioneer, 17s. 6d. to 22s. 6d.; Penhale and Barton, 20s.; South Crebor, 7s. 6d. to 12s. 6d.; Silver Hill, 2s. 6d. dis.; Tamar, 17s. 6d. to 22s. 6d.; Tin Hills, 15s. to 17s. 6d.; Trevince Consols, 15s. to 17s. 6d.; Tresavean, 2s. 6d.; United Shepherds Wheal Rose, 7s. 6d. dis.; Walkham United, 5s. to 7s. 6d.; West Crebor, 5s. to 10s.; West Kitty, 8¾ to 9; West Chiverton, 2s. 6d. to 7s. 6d.; West Lisburne, 17s. 6d. to 22s. 6d.; West Holway, 20s. to 30s.; Wheal Jane, 25s. to 30s.; Wheal Jewell, 8s. to 11s.; Wheal Fortune, 20s. to 30s.; Wheal Luskey, 5s. to 6s.; and Wheal Owles, 6 to 8.

In shares of gold and silver mines there has been less business doing. Richmonds improved to 17¼, 17½, and are now easier at 16⅝, 17⅞. A new company, the Guinea Gold Coast, is favourably spoken of. Australasian Mines are at 5s.; Cedar Creek, 1s. 3d. to 3s. 9d.; Central Wynaad, 2s. 6d. prem.; Dingley Dell, 20s.; Exchequer, 2s. 6d. to 3s. 9d.; Emma, 40s. to 50s.; Eureka (Nevada), 23s.; Flagstaff, 5s. to 7s. 6d.; Gold Coast, 27s. 6d. to 30s.; Great Southern of Mysore Gold, 10s. to 15s.; Indian Consolidated, 12s. 6d. to 17s. 6d.; Indian Kingston, 10s. to 15s.; I.X.L., 1s. 3d. to 3s. 9d.; Indian Trevelyans, 15s. to 20s.; Javali, 5s. to 7s. 6d.; Mysore, 23s. 9d. to 26s. 3d.; New Gold Run, 4s. to 6s.; New Callao, 2s. 6d. dis; Oganos, 20s. to 25s.; Quartz Hill, 20s. to 25s.; Simon's Reef, 20s.; South Wynaad, 20s.; South-East Wynaad, 23s. 9d. to 26s. 3d.; Tecoma, 3s. to 5s.; United Mexican, 30s. to 35s.; and Victorine 10 per cent. debentures, 20s.

In shares of oil and miscellaneous companies Walkinshaw Oil have advanced 5s. per share, and Oakbank Oil 2s., but Young's Paraffin are reduced 5s., Uphall Oils 1s. 3d., and Oakbank Oil (new) a smaller extent. A call of 2*l.* per share has been made on the Walkinshaw Oil shares, payable Dec. 2, when their will be 3*l.* 10s. paid. Uphalls have been sold from 9*l.* 3s. 9d. to 9*l.* Burntisland Oil shares are at 5¼; Lawe's Chemical, 5 to 5½; Milner's Safe, 10 to 10¼; Neuchatel Asphalte (ordinary), 5s. to 7s. 6d.; and Safety Blasting Powder, par to 5s. prem.

EDINBURGH.—Messrs. THOMAS MILLER and SONS, stock and share brokers, Princes-street (Nov. 10), write:—Home railway stocks have been buoyant during the past week. In Scotch stocks, Caledonian has risen from 107⅜ to 108⅝, Glasgow and South Western from 118 to 118½, Great North of Scotland from 60⅛ to 60⅞, North British from 92⅜ to 93½. Canadian stocks have improved on the termination of the "war of rates." Clydesdale Bank has risen from 222 to 225, and Union from 221 to 221¼. Bank of Scotland from 292 to 293, Commercial from 353 to 355. National has receded from 280 to 279½. Standard Insurance shares have receded from 73 to 72 and Northern from 54¼ to 83½. Clyde Coal shares, after advancing from 66s. 6d. to 74s. 6d., have relapsed to 67s. 6d. Marbella Iron have had numerous fluctations, and at 5 11/16, show a rise of 5s.

IRISH MINING AND MISCELLANEOUS COMPANIES' SHARE MARKET.

DUBLIN, NOV. 10.—As a rule rails continue dull. Belfast and Northern Counties are 2s. 6d. easier, at 43¾. Great Northern was 15s. lower than previously, but fairly firm at 115. Great Southern are better, being rallied 5s., to 109¼. Great Northern and Western repeated 126, and Derry Stock produced 170. Great Southern Four per Cent. Preference is 10s. easier, at 108½, while the Four per Cent. Debenture realise previous price—110; Derry Five per Cent. Stock marking 130. In the railway market there has been a reaction in some instance, following the recent smart advance. Great Northern has fallen 50s.; and Midland Great Western, after having advanced 10s., to 84½, closed 12s. 6d. lower, and 7s. 6d. above the worst marking. Great Northern, having been 10s. lower, are in fair request, establishing an advance of 15s. Belfast and Northern Counties and Cork and Bandon, at 43⅞ and 86 respectively, are each 30s. higher.

SORTRIDGE COPPER MINING COMPANY.

The following report on the above mine by Capt. Charles Thomas, of Cook's Kitchen Mine, Camborne, has been obtained by a shareholder for his own information, and will no doubt be interesting to other shareholders:—

Nov. 4.—At your request I have again inspected Sortridge Mine, and beg to make the following remarks:—Since my last inspection the shaft has been cased and divided to the 30. The 30 has been drained and cleared, and over 100 fms. of the adit have been cleaned up. This will shortly be entirely cleared, when a few fathoms driving north will enable you to intersect the tin lode 40 fms. from surface, and just beneath the ancient surface working referred to in my previous report. I went down these old workings to-day and found the lode has been taken away 5 or 6 ft. wide for several fathoms in length and height. I suggested to the manager that 15 or 20 tons of stuff be broken here and sampled at once in order to estimate the value of the lode at this point. I very carefully took samples of 20 to 25 tons of tinstuff broken in the 30, and also of 20 tons of selected burrow stuff. The latter I find will produce 36 lbs. of tin to the ton of stuff, and the former 25 lbs. The tinstuff from the new western shaft produces 48 lbs. of tin to the ton, as stated in my last report. I should recommend you for the present to confine your attention to the tin lode by means of the deep adit level, and communicating from the 40 to the old workings at surface. This should be done as rapidly as possible. You will then be enabled to form a correct idea as to the value of the tin lode, and will be better able to judge what machinery and appliances will be required for future working. The cost will probably be about 150*l.* per month, and the time required (say) six to nine months. In conclusion, I find nothing to alter my opinion that you have in Sortridge a promising sett, and one which really deserves immediate development.—CHARLES THOMAS.

FOREIGN MINES.

ALAMILLOS.—Oct. 26: In the 40, driving west of San Felipe's shaft, the lode is producing stones of ore, but not sufficient to value. The lode in the 40, driving east of Eusebio's winze, is smaller, being valued at 1 ton per fathom, and the granite is harder for driving through. In the 130, driving east of Taylor's engine-shaft, the lode became poor a few days since. In the same level, driving west of Taylor's engine-shaft, there is a strong lode, which has somewhat improved in value, producing 1 ton of ore per fathom. The lode in the 80, driving east of San Victor's shaft, has considerably fallen off in value, its present worth being 1½ ton per fathom. In the 80, driving west of San Victor's shaft, a small vein has been intersected, on which the men are put to drive. The lode in the 70, driving in the same direction, has a better appearance, containing spots of lead. The driving of the 60, west of San Victor's shaft, is resumed, and we hope soon to find the shoot of ore which the level below has passed through. The lode in the 50, driving west of Judd's cross-cut, is small and unproductive. In Sagasta's winze, sinking below the 115, the lode (valued at ½ ton per fathom) is producing less lead ore.

BUENA VENTURA.—Oct. 26: The lode in the 40, driving east of Cox's engine-shaft, is very regular, consisting chiefly of carbonate of lime, and yielding good stones of ore worth 1 ton per fathom. The 50, driving west of Cox's engine-shaft, is passing through a piece of unproductive ore ground. The lode in the 20, driving east of Taylor's engine-shaft, is compact and regular, and of a promising appearance, producing 1 ton of ore per fathom. In the 30, driving in the same direction, the lode is very open, and yielding good stones of ore. The lode in the 30, driving west of Taylor's engine-shaft, is small and unproductive. In No. 4 winze, the ground is hard for sinking below the 40. No. 5 winze, sinking below the 10, is holed to the 20, and produces ½ ton per fathom.

FORTUNA.—Oct. 26: The 120, driving west of O'Shea's engine-shaft, was slightly disarranged by cross-joints, but is again improving, and produces ¾ ton per fathom. The lode in the 70, driving west of San Pedro's shaft, is small, and the ground very hard. In the 80, driving in the same direction, there is a large strong lode spotted throughout with lead ore, and worth 1½ ton per fathom. The lode in the 90, driving west of San Pedro's shaft, has improved, and is yielding fine lumps of ore valued at 1 ton per fathom. In the 90, driving east of San Pedro's shaft, the lode has become regular, but does not produce ore enough to value. The 80, driving east of San Pedro's shaft, has become very poor, and has scarcely lode enough to trace. The 120, driving east of O'Shea's engine-shaft, having fluctuated in the past fortnight, has now a more settled appearance, and produces ¾ ton per fathom. The lode in the 100, driving east of Lowndes' shaft, is large and contains more ore, but not quite enough to value. In the 80, driving east of Santo Tomas shaft, the lode continues small and poor and the ground hard. The lode in Juno's winze, sinking below the 110, has increased in size and value, and yields fine stones of ore worth 1 ton per fathom. In Ovana's winze, sinking below the 60, the lode is larger, but does not contain ore to value. Chulo's winze, sinking below the 80, and producing ½ ton per fathom, is again improving in value, but is at present wet and spare for sinking.—Los Salidos: The lode in the 175, driving west of Taylor's engine-shaft, is small and poor, but the ground is easier for driving through. In the same level, driving east of Taylor's engine-shaft, there is a compact and well-defined lode, producing 1½ ton per fathom. The lode in the 160, driving east of Taylor's engine-shaft, is composed of quartz and spots of ore, not enough to attach a value to. The 145, driving east of Taylor's engine-shaft, continues in broken and unsettled ground. In the 130, driving in the same direction, the lode has slightly diminished in size, but is laying open splendid ground at 3 tons of ore per fathom. The lode in the 120, driving east of San Pablo's shaft, is regular and compact, and produces good lumps of ore worth 1½ ton per fathom. In the 80, driving west of Palgrave's shaft, the lode is divided into branches, all of which contain ore valued at about ½ ton per fathom. Frederico's winze, sinking below the 120, is going down in a productive lode worth 2 tons per fathom. Galera's winze, sinking below the 160, and producing ¾ ton per fathom, is communicated with the 175; good ventilation is effected, In Pepe's winze, sinking below the 65, the lode is split; its value being ½ ton per fathom.—San Anton: The lode in the 45, driving east of Henty's engine-shaft, is regular, and continues to open up valuable ore ground, worth 2 tons per fathom. In the same level, driving west of Plata's winze, there is a large open and productive lode valued at 3 tons per fathom. In the 55, driving east of Henty's engine-shaft, the lode (producing ½ ton per fathom) is large, but of little value at present. The 55, driving west of Henty's engine-shaft, is still in broken ground. In the 45, driving west of Henty's engine-shaft, the ground has altered, and we expect soon to cut the lode. The lode in the 30, driving in the same direction, and worth ½ ton per fathom, has not improved in value. In Rafael's winze, sinking below the 45, the lode continues regular, and produces ½ ton per fathom; ground moderately easy for sinking.—San Francisco Mine: In the 25, driving east of engine-shaft, the lode is poor at present. The lode in the 40 driving east of engine-shaft, has fallen off in value, and the ground is harder for driving. In the 140, driving west of engine-shaft, the lode is small, giving occasional stones of ore, but not sufficient to value

LINARES.—Oct. 26: The lode in the 115, driving east of Warnes's engine-shaft, is large and strong, yielding good stones of ore. In the 130, driving in the same direction, the ground is hard and the lode unproductive. The lode in the 130, driving west of Warne's engine-shaft, contains a little ore, but nothing to value. In the 115 fathom level, driving west of Warne's engine-shaft, the lode (worth 1 ton perfathom) has fallen off a little in value during the past fortnight. The 135 fathom level, driving west of Peill's engine-shaft, is opening up moderately productive ground at 1 ton of ore per fathom. The lode in the 120, driving west of Peill's engine-shaft, is small, consisting of quartz and lead ore worth ¾ ton per fathom. In the 135, driving east of Peill's engine-shaft, there are stones of ore in the lode, but nothing of any actual value. The lode in the 120, driving east of Peill's engine-shaft, is disarranged and unproductive. The 105, driving east of San Francisco shaft is opening up a good length of productive ground worth 2 tons per fathom. No. 240 winze, sinking below the 100, is holed to the 115, and is valued at 5 tons per fathom.—Quinientos Mine: In the 100, driving east of Taylor's engine-shaft, there is a large kindly lode consisting of carbonate of lime of lead ore producing 2 tons per fathom. The lode in the 90, driving in the same direction, has greatly improved and is valued at 3 tons per fathom, Alcayar's winze, sinking below the 55, is holed to the 65, and produces 1 ton per fathom. Hernandez winze, sinking below the 80, and worth 1 ton per fathom, is situated east of Taylor's engine-shaft, and in advance of the 90.—Majada-Honda Mine: The 45, driving east of Enriquetas shaft, has passed through a good shoot of ore, but the lode is poor at present. The lode in the 70, driving east of San Francisco shaft, is small, but very compact and regular. The 70, driving west of cross-cut No. 3 lode, has been idle for some time, and the men put to assist the pitmen.

We understand Mr. Currie Gregory, F.G.S., goes next week to Western America again to inspect several gold and silver properties

Lectures on Practical Mining in Germany.

CLAUSTHAL MINING SCHOOL NOTES—No. CLXXXIII.*

BY J. CLARK JEFFERSON, A.R.S.M., WH. SC.,
Mining Engineer, Wakefield.
(Formerly Student at the Royal Bergakademie, Clausthal.)

The shape of the body of pit corves is very various, depending on local circumstances. A perfectly cubical form is that which is the most economical in material, but will generally be too high and too broad, and besides is inconvenient for handling by the miner. The best shape appears to be that which is approximately square in cross section, and rectangular in longitudinal section; the ratio of the length, breadth, and height being about as 4:3:3, or more exactly 11:9:9. The greater the length the more easily is the corf handled by the miner in going round curves, and in getting it on to the rails when it is off, but also so much the greater is the liability of the corf to tip over. The "belaines" of Liege are approximately of the above form, with the exception that the sides and ends are bellied outwards on account of being drawn up the shaft, slung from the rope, without cages. On this account also the wheels are placed beneath the body, and to increase the capacity the bottom is carried down to the centre of smaller breadth to the level of the axles. With the ordinary rectangular section the wheels are placed sometimes beneath and sometimes at the side of the body. The latter has the advantage that the wheels can be made larger, and the centre of gravity of the corf kept lower, but has the disadvantage of narrowing the corf, or increasing the width between the rails, and consequently requires wider roadways. In order to obtain the advantage of the fullest width with a given guage of the rails various arrangements have been resorted to. In some the body, which is rectangular in section above the wheels, and of the full breadth, is narrowed between the wheels, and comes down to the level of the axis. In some cases it is shortened also in length, and brought down below the level of the axle. In others the sides are inclined, so that the corf is wider at the top than at the bottom, which comes down level to the axle; this has the advantage that the sides are straight. Slightly more complicated is the arrangement of having the sides vertical for the upper portion and inclined inwards at the lower portion. When sheet-iron is used for the body of the corf a very common arrangement is to carry the sides down vertical to the top of the wheels, and then bend them inwards, inclined at about 45 deg., and again vertical down to the level of the axle. In order to obtain a large size of wheel it is sometimes usual to crank the axle upwards close to the body, in which case, of course, the wheels must be loose on the axles. More rarely the axles have been made to pass through the sides of the corf. To facilitate the emptying of the corves one or both ends are inclined, an arrangement very usual in Belgium. Von Hauer states that in some districts corves have been used the horizontal section of which is an ellipse, such and all forms in which the sides are not straight will be best made of sheet-iron. In the highly inclined coal seams of the Esperance Colliery, where the props at the side of the level have an incline of 35 deg., the cross section of the corves is a rhombus. In the highly inclined 28-in. seam of the Carolus Magnus Colliery, near Essen, the ordinary corves from the working faces are emptied at the bottom of the jig-brows (by opening one of the hinged ends) into corves the one side of which is considerably higher than the other.

As material both wood and sheet-iron are used in the construction of pit corves. The wood used for the sides varies from ¾ in. to 1¼ in. in thickness: 1 in. seems to be the most general. For the bottom of the corf the thickness varies between 1½ in. to 2½ in., and for the frame from 2½ in. to 4 in. in thickness. The corners are generally covered on the inside and outside with sheet-iron, angle-iron being often used for the inside. The top edge of the ends are also strengthened and protected by a flat bar of iron, running from one side to the other. In place of wood sheet-iron may be advantageously used for the bottom of the corf, it being stiffened by two or three pieces of thick wood.

When sheet-iron is used as material for construction the thickness varies from ⅛ to ¼ in., the heavier plates being used for the bottom. The plates are connected at the corners by means of angle iron, and the upper edges are stiffened by flat bar iron rivetted to the sheet iron. In many cases the sheet iron corves have no frame, the bearings for the axles being bolted direct to the bottom of the corf, which is strengthened by two flat bars above and parallel to the axle. When a frame is used it may consist of two longitudinal [or I irons, to the underside of which the axle bearings are fastened, the longitudinal pieces being tied near the two ends by cross pieces. Longitudinal wooden bars, from 3 in. to 5 in. wide, and 4 in. to 6 in. deep, are also used for the frames of iron corves. These bars project 2 in. or 3 in. at each end, and act as buffers. The following appear to be the chief distinctions between wood and iron as materials for the construction of pit corves. The introduction of sheet iron seems to have been made with a view of obtaining lighter and more durable corves than is afforded with wood. Owing probably to this, the majority of the first constructions were made too light, and under the rough treatment they were necessarily subjected to they soon became deformed. To stiffen them thicker sheets were used, or stiffening pieces were attached; it is found, however, that this makes the iron corves at least as heavy, and in many cases heavier, than those constructed of wood. Sheet iron lends itself more readily to curved or irregular forms, with which, as above remarked, a larger capacity can be obtained, and the curved forms are more economical in material, and allow of the mineral being filled tighter than where angular corners occur. Sheet iron is readily bulged when the corves are filled only with large coal and ores; they are much more expensive to repair when damaged, and 20 to 40 per cent. dearer in first cost, not so durable as wood where saline waters are present. Where mechanical haulage is applied corves made entirely of iron are not recommended. The greatest advantages appear to be obtained by a combination of both sheet iron and wood. Lottner recommends sheet iron for the sides and wood for the bottom, and in many places in England it is preferred to make the sides of wood and the bottom of sheet iron, stiffened by thick pieces of wood on the under side. The bottom lasts longer when made of sheet iron, and when worn out only one single plate requires renewal, and the wooden sides are much more readily repaired than are those of sheet iron.

The wheels are generally made of cast iron, and in order to increase their hardness are sometimes cast in chilled moulds. Both wrought iron and steel wheels have been employed, and although they can be made much lighter and wear longer, have been generally found to be too expensive in the first cost. Cast iron wheels of small diameter, 10 in. to 13 in., are not very likely to break with ordinary usage, and if cast in chilled moulds do not wear away so rapidly. The weight of steel wheels is only about 60 per cent. that of cast iron wheels, but the cost is from two to three times as great. The form of the wheel varies, sometimes as a plain disc, with boss and rim. To lighten the wheel the disc has holes cast in it; generally the arms, of T section, are cast with the rest of the wheel. Occasionally the arms are made of wrought iron. The bosses of wheels which run loose on the axles are often cast on a chilled mould. Loose wheels are kept from coming off the axles by small cutters through the axle, or by means of a washer and split pin, or by means of a locked nut on the end of the axle. Fast wheels are fastened on to the axle by forming a flat on the axle and groove in the wheel, between which a taper key is driven, also by means of a pin or cotter passing through both boss and axle. Loose wheels may also be kept on the axle by turning a groove in the axle, into which a cotter driven through the boss one side of the axle fits. The diameter of the wheel on the tread circle varies from 8 or 10 to 17 in.; 11 in. appears to be a very common size for English collieries. Von Hauer gives the following dimensions for the ordinary limits of corf wheels. For loads varying from 10 to 24 cwts. the diameter varies 10 to 20 in., the thickness of the rim from ½ to ¾ in., the depth of the flange from 0·6 to 1 in., the number of arms from four to eight, and the thickness of the latter from ½ to ⅞ in. The breadth of the arms measured parallel to the axis is made equal to the breadth of the rim, which should not exceed 4 in. The diameter of the boss is equal to the diameter of the axle, plus ½ in. The bearings for the axle are often formed in one piece, the simplest form being a flat plate with two vertical projections on the under side; a bolt, or a short piece of round iron, bent up at the ends, being passed through the lower part of the projections, to prevent the axle from falling out. The bolt should not be connected close up to the axle, as it is desirable to allow a slight vertical play, so that all four wheels may always run on the rails, even when the top of the rails are not perfectly level, and is also necessary when the tread of the wheel forms part of a conical surface. The bearings may be placed either within or outside the wheels; the corf is steadier in the letter case on the axles, but brings the wheels closer together. On the Continent it is not unusual to line the axle bearings with a brass or composition bush. Many bearings for the loose axles are so constructed as to eave the underside of the axle bare, with the result that the dust lathers on the axle, and is carried on to the bearing. The oil or grease is soon dried up, and forms with the dust a surface offering great friction. It is, therefore, advisable in all cases to cover the under side of the bearing.

The oiling of the axles in the case of fast wheels is usually effected when the corf is at the screens turned upside down, and when loose wheels are employed the oiling of the axles is effected when the corf is turned on its side, the cor being often run on to a special tipping, arrangement. Both these arrangements have the disadvantge that but a small fraction of the oil is actually used in greasing the axle, the greater portion dropping on to the ground. To avoid this loss, and to keep the wheel more constantly and regularly greased, many arrangements have been devised. In many of the Belgian pits where the corves used have the axle bearings on the outside, the bearings are made very similar to the axle boxes of ordinary railway wagons. In the North of England the following arrangement has been extensively used. The bearings, which are outside the wheels, are bored out to fit the axle, which has a collar turned on it at 3 in. or 4 in. from the end. At about ⅔ in. from the collar a recess is bored out in the bearing, and the axle likewise has a recess turned in it in the centre of the bearing. This arrangement gives two annular recesses round the axle. Communication is made with the recess formed by turning down the axle by means of a grease hole, which can be stopped by a plug. This first recess is filled with oil, which gradually finds its way into the second. The front and back ends of the bearings are closed by screwing on circular plates; the inner one having a hole through whlch the axle passes keeps a leather washer tight against the collar on the axle. Very similar is the device of Köpe used in tht Westphalian pit corves. The axles are made of cast-steel, and the bearings of wrought-iron. The axle has two collars at each end, fitting iu recesses close to the end of the bearings; these serve to prevent the lateral movement of the axle, and to close the bearings against dust, &c. Between the two collars an hollow chamber is formed in the bearmgs, which is filled with solid lubricant, this being introduced from an opening on the upper side.

Another common arrangement where the bearings lie between the wheels is to have the bearing so formed that upper half cylindrical surface of the bearings rests on the axle, whilst the lower half of the bearing is cast hollow except close at the ends, which are bored out to the exact size of the axle. A short grease hole in the centre of the upper part of the bearing communicates with a wide channel, into which the grease is filled. A sponge in the hollow portion of the lower half of the bearing keeps the axle constantly greased withat portion of the fat which is melted, and runs past the axle. In some of the Westphalian collieries the lower portion of the bearing is cast hollow, and in this a sponge soaked with oil is placed. The oil is renewed when the sponge becomes dry. When the axles are fixed and the wheels run loose on the axles the oil chambers are cast in the boss of the wheel. The outer end of the boss is closed; the axles does not come quite to the end of the boss, leaving an empty space at the end as a reservoir for the oil. When a collar is turned on the axle to fix a recess in the boss the latter must be cast in halves. With loose wheels there is much greater difficulty in keeping the oil chambers tight than in the case of loose nails.

* Being Notes on a Course of Lectures on Mining, delivered by Herr Bergrath Dr. Von Groddeck, Director of the Royal Bergakademie, Clausthal, the Harz, North Germany.

The Georgia Gold Discoveries.—The wonderful discovery of gold in the beds of the the rivers in Northern Georgia is creating much excitement, and the State Geologist refers to two companies having been formed to turn it to account. One Boston company has 800,000*l.* nominal capital. Mr. Livenus Hull being president, Mr. F. A. Cushman, of Lebanon, secretary, and Mr. M. C. Cushman, of Boston, treasurer, and the work will be done by the boats of the International Dredging Boat Company. These boats are now operating on the Pacific slopes. The mud from the bottom of the rivers is forced by atmospheric pressure through the pipes resting on the bed of the river on to the deck. About 5000 lbs. of mud and sand, from the river's bed, can be delivered on the deck in 10 minutes. The process is rapid, and a large quantity of mud can thus be mined in one day. The beds of the Chestatee and Chattahoochee rivers are so rich in gold that the very sands on the shore yield the precious metal. Many small mountain streams, says the American Mail, from which this account is taken, cross large veins of gold, and these streams, flowing into the Chestatee and Chattahoochee, have washed this precious freight from their sources for hundreds of miles, The first boat is being built near Dahlonega, and will begin work the middle of September. Large nuggets are found on the rock bed of the rivers, and in the little dips and hollows that the waters have made. The dredging boats cost from 1200*l.* to 2000*l.* each, and the company is having them built as rapidly as possible to put on all the gold bearing rivers. Over 20 miles of the rivers above mentioned have been leased from persons living on their banks, at 10 per cent. of the yield. These 20 miles will be enormous mines, as the river beds can be worked 12 ft. or 14 ft. deep. The dredging boat now in course of construction is calculated to take about $1000 worth of bullion a day from the river bed.

DATE COFFEE MANUFACTURE IN FRANCE.

A large shareholder in the French Date Coffee Company having visited the Paris factory, and given the secretary—Mr. T. Fortescue Haymen—a very favourable opinion of what he saw there, a copy of the communication has been forwarded to the shareholders generally and will doubtless be welcome to them and to those interested in the associated companies as gratifying information, coming from an independent source. The factory being on the business route from Paris to Vincennes, at Montreuil-sous-Bois, is reached in a few minutes and for a few centimes, by either omnibus, tram, or rail, and once in the vicinity it seems that the aroma will suffice to indicate the precise location of the works, for the shareholder remarks that before arriving at his destination he was agreeably reminded of its vicinity by the odour of coffee which filled the air. This was not like the odour of ordinary coffee when roasted, which is disagreeable and acrid, but resembled the aroma of freshly-ground coffee, although, as he subsequently found, the agreeable odour referred to proceeded entirely from the roasting of the date fruit, no grinding operations being then in progress. The building, a spacious one, has been obtained at the low rental of 6000 frs. (240*l.*) per annum, with option of purchase within three years, and the shareholder continues—This is certainly a very good bargain, and shows that the company have due regard to economy. On entering the building the ovens were fortunately just being drawn, and I saw the roasted dates as they were removed, and tasted them, the flavour strongly resembling coffee, but without the bitter taste. There were four very large ovens, capable, with the existing plant (as I was informed by the obliging manager, Mr. Reynolds), of turning out 3 tons of coffee per day. I next inspected the mixing and grinding machines, worked by steam-power, and also the packing of the coffee in tins, labelling, &c., which was done by women, very neatly and expeditously. This latter department is on an upper part of the building, to which a lift conveys the coffee for the packers. There were several thousands of tins, ranging from ½ kilo. to 2 kilos. each, packed ready to be sent out. More satisfactory than all, I saw an enormous pile of date fruit packed in bags, just as it had arrived from India. I should estimate the quantity at from 70 to 80 tons. I tasted the fruit from several bags, and found it of excellent quality. I should mention here that there is no duty on dates as imported direct into France; but if sent *via* any English port its duty is only 3 frs. 50 c. per 100 kilos., an amount which in any case cannot affect the price of the coffee.

It has more than once been stated that whether for flavour or aroma it is extremely difficult to distinguish the Date coffee from the finest Mocha, and this view appears to be fully confirmed by the shareholder who visited the Paris works, a visit to which, he remarks, will have the certain result of removing a vast amount of unfounded prejudice. The manager told him that the factory is open at all times to all comers, whether shareholders or not. Kurrachee, he adds, is unfortunately a long way to go for people who like to see for themselves before embarking in a new enterprise; but this factory is so near and so easily reached that he is sure many shareholders visiting Paris will not fail to take advantage of the information here given. As to Date coffee it is, perhaps, unnecessary for him to say anything about it, seeing the highly favourable opinion expressed by competent authorities, and by all who have tasted it. It is cheaper than ordinary coffee, and the same quantity will go almost twice as far; it requires much less sugar, and it has no bitter taste nor heating effects like ordinary coffee. He found it excellent, and he and his family use nothing else, as they find it agrees much better with them than ordinary coffee. He not unnaturally observes that the best advice he can give to everyone is to try it, and as regards the French Date Coffee Company he feels certain that even greater success will attend the enterprise in France than in this country, as the consumption of coffee is not only very much greater than in England, but its price is nearly double, leaving a wide field open for its new and favourable competitor—Date coffee. Already large orders have been received, and to his mind the success of the company is assured

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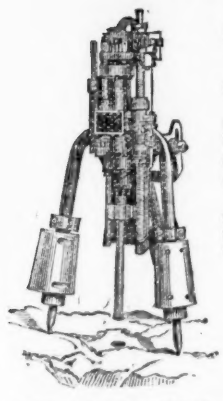

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CAST STEEL FOR TOOLS, SHEAR, BLISTER, AND SPRING STEEL.

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CANNON STEEL WORKS, SHEFFIELD.

The Only Knapping Motion Stone Breaker and Ore Crusher.

AWARDED THE ONLY SILVER MEDAL FOR MECHANICAL EXHIBITS AT THE ROYAL CORNWALL POLYTECHNIC SOCIETY, FALMOUTH, SEPT., 1881.

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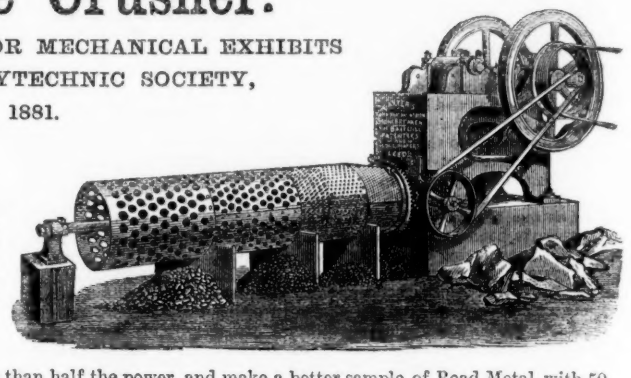
SIR,—In answer to your enquiry respecting your 12 by 8 Stone Breaker, we break on an average 60 tons of stone per day. The percentage in chippings and dust is under 10 per cent., which we consider is extremely small, considering the size we break our stone to, the machine making 60 per cent. X X, or 1¾. The driving shaft never gets hot. We can work it the ten hours without stopping. Yours truly,

RAWSON AND RAWSON.



These Machines turn out the same amount of work with less than half the power, and make a better sample of Road Metal, with 50 per cent. less waste, than any other machinery, and for Crushing Purposes they are still more advantageous, as the sudden action entirely dispenses with the clogging when used for crushing softer materials, and thereby saves many breakages and a great waste of power. There is also a saving of fully 75 per cent. of lubrication required over the Blake Machine, and as a proof of this, our driving shaft never becomes heated. We are also prepared to guarantee our driving shaft from breakage in any of our Knapping Motion Stone Breakers.

We have already supplied our Machines to Derby, Harrogate, and Falmouth Local Authorities; besides several Quarry Owners, Contractors, Plaster Manufacturers, &c.

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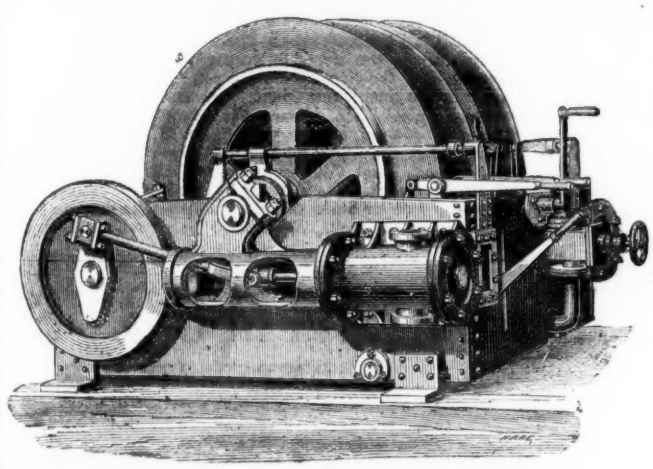
DESIGNED FOR USING COMPRESSED AIR OR STEAM.



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A,— 6 in. double cylinder, with 2 ft. 3 n drums
B,— 8 in. „ „ 3 ft. 0 in drums.
C,—10 in. „ „ 3 ft. 6 in drums.
D,—12 in. „ „ 4 ft. 6 in drums.
E,—14 in. „ „ 5 ft. 0 in. drums.

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WILLIAM THOMPSON,

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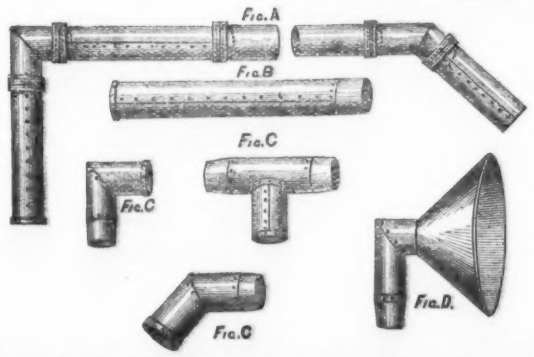

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Baskets, Kegs, Pit Tubs,
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Kibbles for Copper Mines, &c. General Sheet Iron Worker.

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Fig. A,—Shows the tubes adapted for any variation in direction.
Fig. B,—Straight length of tube.
Fig. C,—Different angle bends.
Fig. D,—Is a hopper to receive air at top of shaft.

Highfield Works, Ettingshall, near WOLVERHAMPTON.

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